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THE DIAGNOSIS AND TREATMENT OF HEMORRHOIDS.

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Before one can attain the highest art in the treatment of any surgical disorder, it is necessary for him to be able to make the most accurate and distinctive diagnoses. A large majority of the mistakes made in the treatment of rectal diseases are due to the fact that surgeons act upon superficial symptomatic evidences, instead of an actual knowledge of the condition of affairs. The fact that bleeding from the rectum after stool is such a common symptom in hemorrhoidal disease leads many physicians to accept the self-made diagnoses of their patients without local examination of the parts, and to treat them by salves, suppositories, etc., until these remedies have proved their inefficacy, and then to suggest an operation. Unfortunately, many of these cases, thus superficially observed, turn out to be cases of a more serious nature, in which the bleeding or hemorrhoids are but symptoms.

Even those who are more accurate in their work, and less averse to insistence upon local examination for every local disease, have been, in the past, content to rest their diagnoses upon digital examination, frequently made with the clothing in position and without even a view of the parts. So far as it goes, the finger is undoubtedly the most useful instrument in examination of the rectum, but it has its limitations in the first four inches of the rectum, and in ordinary varicose hemorrhoids it is exceedingly inaccurate, for it is impossible to feel them when collapsed. Not only is this true, but it gives no idea of the actual condition of the mucous membrane of the rectum and sigmoid above the four inches which can be felt, and very little of that within its reach.

The time is past when careful surgeons rest their opinion upon such superficial examinations. Modern ingenuity has devised for us means by which our diagnoses can be made absolutely accurate in the rectum as well as in all the orifices of the body. Laryngologists would no more think of making a diagnosis in throat disease without looking into the organ than would a proctologist consider giving an opinion upon rectal diseases without ocular observation at the present day. Feeling is a most useful adjuvant in all examinations, but it cannot possibly take the place of absolute sight. Since Kelly demonstrated to us the possibility of introducing a straight cylinder into the sigmoid flexure, the field of rectal diseases has largely widened, and our knowledge of their pathology has become much more accurate. While the modern instruments are a great improvement upon those of this noted surgeon, the great impetus which has been given to the study of rectal diseases in the past seven years is practically due to

him. The modern pneumatic proctoscope is but an evolution of the Kelly tubes, devised to overcome difficulties which were found in the use of his noted instruments, to give a wider and a better view of the parts, and to enable us to make examinations in positions and under circumstances in which they were formerly impossible.

An instrument of special value as a means of diagnosis, is a modification of the Kelly tube, which has gradually evolved from the suggestions of Laws, Pennington, Beach and others. It consists of two cylinders. The small one serves to carry the electric light, which is thrown direct upon the parts observed, and is closed by a glass globe at its distal end. The larger cylinder furnishes the means of viewing and treating any portion of the rectum or sigmoid throughout its extent. Into it an obturator fits, which is used only for passing the instrument through the sphincters. After this the bayonet-fitting plug, in which there is a glass aperture and a small tube for the admission of air, is fitted into the end of the larger cylinder. The rubber hand-bulb is then attached, and by it the rectum is inflated, so that the whole gut may be viewed up to the sigmoid flexure without passing the instrument any further in. The gut being distended, however, the tube can be passed upward to the sigmoid flexure without impinging upon the surfaces of the rectum, thus avoiding any traumatism or pressure upon tender spots. The pneumatic pressure being continued, the sigmoid is lifted from the pelvic cavity and straightened out upon the rectum, so that the straight instrument can ordinarily be introduced even into this portion of the gut, practically without coming into contact with its walls. As the instrument is carried in through this dilated space, every portion of the circumference of the intestine is constantly in view, and if there be stricture, ulceration or neoplasm, either low down or high up, it can be accurately seen. By this means the final diagnoses of rectal diseases from symptoms and through inferences are made obsolete. We no longer think or opine concerning a disease, we see it and we know it. Such an examination is necessary in every case of supposed hemorrhoids, simply to eliminate all possibility of a more serious disease above as a cause of the hemorrhoidal affection, and to be able in giving a prognosis to the patient to tell him whether the removal of his hemorrhoids will result in the cure of his symptoms or not.

As the tube is withdrawn through the anus, one is able to accurately observe the hemorrhoid-bearing area, and to determine (whether he has been able to feel them or not) the presence or absence of varicosities, erosions or ulcerations in this area. The examination, while slightly painful in some patients, is ordinarily free from this in the large majority, and I have never found it necessary to administer an anesthetic in order to carry it out. This method of diagnosis is not only important in determining the presence of hemorrhoids, but, until we learn to make a more accurate diagnosis than this, our success in the treatment of this disease will be much limited. One should not only know that a patient has hemorrhoids, but he should determine their cause and their type.

The limits of this paper prevent a discussion of the etiology of this disease. There is scarcely any condition to which the human flesh is heir that has not at one time or another been accused of producing piles. Age, sex, occupation, habits, environments, heredity, temperament, climate and seasons, anatomical conformations, constipation, drugs, diet, strain, tight lacing, external irritations, constitutional diseases, hemorrhages and both atony and spasm of the sphincter

muscles, have all been called into account for their development. Practically one may say that the erect posture, chronic constipation, muscular strain and diseases of the genito-urinary organs are the most frequent causes, and where any of these conditions exist, operations upon the hemorrhoidal tumors are not likely to prove successful in the relief of the patient's symptoms, unless these etiological factors are at the same time remedied. Time and again have I seen patients suffering from hemorrhoidal symptoms, bleeding, aching in the back, prolapse at stool and spasm of the sphincter, all due to nothing but a retroverted and displaced uterus, and all relieved by the adjustment of a properly fitting pessary. Time and again have I seen these same symptoms accompanied by a stricture and inflammation of the deep urethra, the removal of which has resulted in the entire relief of the hemorrhoidal condition. In certain conditions of other organs, in which hemorrhoids are but a symptom, any interference with the latter may prove most detrimental to the patient. Particularly would I call attention to the inadvisability of interfering with hemorrhoidal fluxes in cases of cirrhosis of the liver. It has ever been shown that in these cases the hemorrhages are without doubt to a certain extent salutary, and where they are discontinued by operation or local treatment, the patients have rapidly developed anasarca or general dropsy, and death has been the result. Some of the older surgeons have even gone so far in such cases as to attempt to re-establish the hemorrhoidal flux by opening the veins or cauterizing the parts so as to thin out the vessel walls, and thus subject them to rupture and bleeding whenever unusual congestion in the contracted liver occurs. These and many other considerations must be taken into account whenever a case of hemorrhoids presents itself for treatment.

Not only should we recognize the causes of the disease, but its type. A large variety of hemorrhoids have been described under various names, but practically one has to deal with but two general classes, external and internal piles.

External Piles.—These may be divided into thrombotic, varicose, inflammatory and connective-tissue hemorrhoids, and each of these varieties demands a distinct kind of treatment.

The thrombotic hemorrhoid, which consists simply in an extravasation of blood into the cellular tissue around the margin of the anus, is one of the simplest and easiest conditions to treat, if attacked radically upon its first appearance. It comes on as a little stinging or sharp pain, followed by a slight swelling, which increases, and as it increases the character of the pain changes to that of aching, throbbing and fullness. If seen at first, it may appear as a simple globular swelling without any distinctive color, or it may have a dark blue or purplish appearance.

There is but one treatment for this condition, and the sooner that it is applied, the better. It is my practice never to allow patients suffering from this condition to arise from my examination table until the clot has been turned out. The hypodermic injection of a little one per cent. solution of cocaine into the skin over the tumor enables us to make a slight incision parallel with the longitudinal folds of the anus, through which the clot can be enucleated without difficulty and without pain to the patient. As soon as this growth is removed, a small strip of iodoform gauze is crowded into the wound, not for the purpose of controlling hemorrhage, but to avoid the reproduction of a clot, which is likely to take

place if the edges of the wound are allowed to come in contact with each other. This packing is left in situ for twenty-four hours only, it is then removed and the edges of the wound approximated by pressure. There is absolutely no danger of hemorrhage, and if these cases are properly treated at once, under antiseptic precautions, they will uniformly heal within two or three days. If left alone, however, the little thrombi may become infected, eventually causing abscess or fistula, or they may become organized and remain as foreign bodies, continually irritating the parts locally and annoying the patient for indefinite periods.

The varicose type of external hemorrhoids consists in a general varicosity of the external hemorrhoidal veins which surround the anus. They are imperceptible, except when the patient goes to stool or sits in the squatting position and strains. They are not painful as a rule, and are practically never complained of, except by the higher class and hypersensitive individuals. It is not from discomfort, from hemorrhages or any disability that professional advice is sought concerning these developments. It is simply the fact that an abnormal dilatation and swelling appear around the anus that our advice is sought. In the large majority of cases these hemorrhoids occur in society and professional people given to much leisure and overfeeding. In most instances the patient confesses to prolonged sitting at stool and straining to have a movement of the bowels, or to the indulgence in laxatives of various types. The pathology of this condition is nothing more nor less than a varicosity of the external hemorrhoidal veins.

The treatment of this condition is practically a revolution in the habits of the patient. The external veins are not connected in any marked degree with the portal circulation. They are therefore not due to congestion of the liver, and hepatic stimulants and limitations of diet will have little effect upon them. The chief thing in the majority of these cases consists in establishing prompt and free evacuation of the bowels. The best method of accomplishing this is to give the patient a cold enema at a certain time, either night or morning, whichever will be most convenient for him, and by this means prevent his prolonged sitting and straining at stool. As soon as the evacuation has been accomplished, the patient should lie down upon his side with the hips elevated, and apply cold water or ice bags to the anus, thus causing the contraction of the veins. Occasionally one will find benefit from applying a salve consisting of

R Ung. ac. tannic,
 Ung. belladonnæ,
 Ung. stramonii aa ʒ j
 M. Sig.—Apply freely to parts at bed-time.

But, as a rule, the prompt evacuation and cold applications will accomplish a radical cure in such cases.

Sometimes, where this type of hemorrhoid is complicated by internal hemorrhoids, an operation upon the two conditions at the same time may be admissible. The operation which I prefer in such cases is a modification of the Whitehead method, and consists in dissecting out the hemorrhoidal area of the mucous membrane, folding back a collar of skin around the margin of the anus, exposing these dilated veins, and removing them. After which the edges of skin and mucous membrane are sutured together. By this means none of the skin tissue is removed, but the varicose veins beneath it are eradicated.

Electrolysis and injections have been advised in this condition, but from my experience they are very unsatisfactory and dangerous procedures.

The inflammatory external hemorrhoids consists in an inflammation of the radial folds of the anus. They are brought on by some abrasion and infection in the sulci or within the rectum. They are usually pear-shaped, the large end directed downward, and occasion the patient a great deal of pain. Spasm of the sphincter is a prominent symptom in these conditions, and yet sloughing is rarely ever seen on account of the fact that the blood supply to the hemorrhoid does not come from within the rectum, but is entirely outside, and therefore cannot be compressed by the spasmodic muscle.

The treatment of this condition may be palliative or radical. The application of ice or cold compresses is not advisable, inasmuch as it may produce sloughing. Where the time or circumstances do not admit of radical operation, one may frequently obtain relief by the application of a twenty-five per cent. solution of boroglyceride, over which should be applied a hot water bag, the patient being kept in bed with the hips elevated. After this application has been employed for four or five hours the ointment given above may be substituted for it, and frequently the inflamed phenomena will disappear within the first twenty-four hours, and the patient be entirely relieved. When the tumors subside, there remain a thickening and hypertrophy of the radial folds which eventually resolve into a skin-tab or connective-tissue hemorrhoid. When the circumstances permit, however, the most rapid and perfect relief can be obtained in these cases either by anesthetizing the patient or by the introduction of cocaine, and radically removing the hemorrhoids. This may be done either with the ligature or with the clamp, or the growth may be cut off with scissors and the edges sutured together. The cautery should never be employed in these cases, because burning the skin is very likely to be followed by excessive pain. My own preference is for simply crushing off the inflammatory hemorrhoids with the ordinary hemorrhoidal clamp. The objection to doing this operation under cocaine consists in the fact that it does not overcome the spasm of the sphincter, and it is very likely to be followed by the development of an anal fissure. In these minor degrees of hemorrhoids ethyl chloride is a very satisfactory anesthetic. It is preferable to nitrous oxide gas on account of its simplicity and the lack of complicated apparatus necessary for its administration.

The fourth type of external hemorrhoids consists in the connective-tissue pile or so-called skin-tab. These growths are the result of inflammatory conditions about the margin of the anus. When quiescent, they occasion the patient no considerable disturbance. At times, however, they become inflamed or excoriated, and under these circumstances they are very painful. They are also annoying to the sensitive individual, in that they interfere with proper cleanliness, and sometimes with such exercises as horseback and bicycle riding. Under such circumstances they can easily be eradicated by cocainizing and snipping them off with scissors, or crushing with the ordinary hemorrhoidal clamp. The bleeding following one of these operations is so slight and so easily controlled by pressure with absorbent gauze that it need give the operator no anxiety. I am in the habit of grasping the tumor after it is cocainized with the hemorrhoidal forceps, dragging it down and crushing its base with the hemorrhoidal clamp until a firmly crushed pedicle is formed. Through the distal edge of this the hemorrhoidal edge is cut off, and the crushing acts as a sort of adhesive

plaster, holding the edges of the wound together. I have frequently seen the wound heal after this operation just as perfectly as if the edges had been sutured together.

Internal Hemorrhoids.—While various in their conformation, internal hemorrhoids may be all included under two classes: capillary and varicose. Capillary hemorrhoids consist in minute nevoid or capillary growths in the mucous membrane. They are nothing more nor less than minute blood vessels, covered over with very thin mucous membrane, which bleeds upon the slightest touch. They do not protrude during stool, they rarely occasion any pain, and yet they bleed at every fecal passage. The amount of blood lost at any individual time is not so much as may be lost in varicose hemorrhoids, but it is much more persistent, and consequently the patients are often the subjects of extreme anemia and exhaustion.

It is impossible to diagnose this condition by tactile sensations. One must absolutely see the parts in order to make out the source of bleeding. Through the speculum they appear as bright red, raspberry-like masses, limited in area and always bleeding upon the slightest touch.

The treatment of this condition consists in cauterization of the bleeding points by one means or another. Ordinarily, surgeons employ nitric acid for this purpose, and it is very effectual. The objection to it consists in the fact that one cannot control the depth to which it burns or the area over which it may spread. I much prefer the use of the Paquelin or electro cautery for this purpose. With the conical fenestrated speculum one can bring the little tumors into view, apply cocaine to their surfaces, and then in a painless manner burn them off with a nasal electrode, thus absolutely removing them and at the same time limiting the action of the cautery to the diseased area. No unnecessary amount of tissue is thus destroyed and the bleeding is checked promptly and permanently without general anesthesia.

The varicose type of internal hemorrhoids vary more in their conformation than in their pathology. They practically consist in varicosities of the internal hemorrhoidal veins. They contain more or less connective tissue, according to the age of the individual and the length of time the piles have existed. Sometimes they consist in isolated tumors, and at other times in a general varicosity of the entire circumference of the rectum. In their early stages they may bleed more or less profusely and prolapse to a very slight extent. As they grow older, however, they bleed less and protrude more. It is not an uncommon experience to be consulted by patients who claim to suffer from hemorrhoids, who say while they formerly lost a great deal of blood that this feature has ceased, and they suffer at the time from only protrusion, pain in the back and constipation.

The treatment of these conditions depends largely upon the stage in which they are seen. I am perfectly confident that the large majority of hemorrhoids could be absolutely prevented if the patients would consult their physicians upon the first feeling of uneasiness, or the first sight of blood from the anus. By the elimination of sweets and excessive starches from the diet list, by cold water enemas instead of drastic purges to move the bowels, by the passage of gradually increasing rectal bougies to overcome spasm of the sphincter, the development of internal hemorrhoids would be checked, if, indeed, the disease itself is not absolutely eradicated. When, however, the disease has gone on to the development of large hemorrhoidal tumors, with more or less plastic and fibrous deposit

in their constitution, such treatment as this can only result in the relief of the patient, and not the cure. Under these circumstances some form of radical treatment should be undertaken. This treatment may consist in injection, in extirpation by the ligature or the clamp and cautery, or in excision with immediate suture—after the Whitehead or other methods.

A few words concerning the treatment of hemorrhoids by injection may not be amiss. There are two schools, so to speak, of "injections." The first believes in throwing into the tumor a considerable quantity of a strong solution of carbolic acid, so as to cause a sloughing of the growth. The second school believes in injecting into the tumor small quantities of moderately strong solutions, with a view to setting up an inflammatory induration, which will cut off a certain portion of the circulation of the growth, and thus cause its gradual atrophy. I have no sympathy with the first method of treatment, for I believe if the tumor is to be removed and an ulceration or granulation produced, this should be done by clean surgical methods, and can be done with much greater safety than by the uncertain injection of escharotic fluids into the tumor. The second method, however, is one which deserves some confidence. In pure internal hemorrhoids, which prolapse through relaxed sphincters, and which are not ulcerated, this method of treatment will frequently give us most excellent results. The accidents and injuries attributed to it have been largely due to carelessness upon the part of the operators, faulty technique and abuse of aseptic principles. When the operation is carried out under proper surgical precautions, the patients being prepared just as for a major operation, the tumors being brought down and cleansed surgically, and the instruments and fluids being thoroughly sterilized, there is no more danger of sepsis, abscess or sloughing in this method of treatment than there is in an ordinary hypodermic injection of morphine.

The fluid which I chiefly employ for injecting hemorrhoids consists in a modification of a formula introduced by Dr. Shuford, and after various experiments I do not hesitate to say that it is by all odds the most satisfactory for this purpose. The formula is as follows:

R	Ac. carbol	3 ij
	Ac. salicylic	3 ss
	Sodii biborab	3 j
	Glycerine, Price's (sterilized)	ad f. 3 j
M.	Sig.—Modified Shuford's solution for injecting hemorrhoids.	

The patient is prepared as stated above, and, if the tumors do not prolapse at the time of treatment, he is caused to sit over a vessel containing hot water and strain for a few moments, and thus bring them down. The growth which seems to occasion the most pain is the one selected for injection at the first sitting. The needle is introduced at the juncture of the hemorrhoid and the mucous membrane and carried well across its base, the finger being introduced through the anus to be sure that the needle has not penetrated the upper limits of the tumor. The fluid is then injected little by little as the needle is partially withdrawn and reinserted into different portions of the base of the tumor. The amount of the fluid employed varies from three to ten minims, the average being about five minims. The needle is left *in situ* for about one minute in order for the fluid to disseminate, and after it is withdrawn a small compress of cotton soaked in alcohol is placed against the opening made in the tumor in order to prevent any exco-

riation from the escape of carbolic acid. After the hemorrhoids are replaced, the compress is placed upon the anus, and the patient is requested to lie quiet for one hour. After this he may go home or to his business. It is preferable that he should go home and be quiet for the next twelve hours. The bowels are confined for the first forty-eight hours; at the end of twenty-four hours, if the tumor is examined, it will be found composed of an indurated, pear-shaped swelling, well within the sphincter. This swelling increases for the first forty-eight hours, after which it gradually subsides, and eventually disappears, leaving no trace of the growth. Only one tumor should be injected at the first sitting, as patients differ very largely as to the amount of inflammatory reaction set up by one of these injections. If the individual suffers little from the first injection, at the end of one week the rest of the tumors may be thus treated at a single sitting. Ordinarily it requires a period of about six weeks to complete the treatment by this method. Thus it will be seen that, compared with the surgical methods, absolutely no time is gained, except that the patient is ordinarily able to be about his business during most of the treatment by this method. That tumors treated by injection may recur I have no doubt, but I do not believe that this recurrence is anything like so frequent as is ordinarily supposed. The cases in which the treatment has failed, so far as my experience goes, have been those which were not properly suited for it; cases with ulceration, tight sphincters, in which the tumors did not prolapse, and in which it was impossible to carry out proper antiseptic precautions. Where these conditions can be met, especially in old and feeble individuals with atheromatous or feeble hearts, all contraindicating surgical procedures, I believe that this method of treatment is by all means the most satisfactory.

I shall not give in detail the treatment of hemorrhoids by ligature. The Allingham and transfixion methods are well known to all physicians, and to those who have been accustomed to use them, they are entirely satisfactory. While I practically never employ these methods for reasons sufficient to myself, I frankly admit that they accomplish in a most satisfactory manner the eradication of the disease. I do not use them simply because I know a better way, one which occasions less pain, less detention from business, less hemorrhage, less complication, and better final results. By this method I refer to the clamp and cautery operation. I shall not go into a detailed description of this operation, for it is so well known; I only wish to call attention to some little practical points which are not ordinarily mentioned in the text-books.

The first of these is the necessity of catching the hemorrhoid in the line of axis of the gut. This is important, first, because it assists in overcoming any tendency to prolapse of the mucous membrane of the rectum; and, second, because it avoids the production of stricture following the operation. It is easily accomplished by the use of the hemorrhoidal forceps, greatly facilitating the operation, and is useful in every class of hemorrhoids. The forceps is introduced into the rectum closed. It is then opened over the hemorrhoid, the latter rises into its grasp, and is caught in the line of the axis of the gut. The growth is then dragged down, and if there be any cutaneous development this should be incised by scissors so as to avoid grasping these sensitive portions with the clamp or burning them with the cautery. This is the second practical point in the clamp and cautery operation. The third consists in applying the hemorrhoidal clamp over the forceps with the heel on the highest portion of the growth. This

is important from the fact that after the tumor is cut off it may slip from the grasp of the clamp, and if such should happen, it would be the part which is least tightly grasped by the clamp, *i. e.*, the lower portion, and this will always be within view, and bleeding can be controlled easily by pressure on hemostatic forceps. The fourth point consists in the application of the cautery. The pedicle of the tumor grasped by the clamp should be charred, but it should not be burnt down into the sulcus between the blades. The first safeguard against hemorrhage in this operation consists in the crushed pedicle. If this is burnt away then nothing more is accomplished by the clamp than if the tumor were simply burnt off without crushing. The crushing is an important hemostatic feature and the pedicle so formed should not be destroyed.

In removing the skin or cutaneous tissue around the lower end of a mixed hemorrhoid the danger is nearly always in removing too little instead of too much tissue. Time and again have I been compelled to cocaineize and cut off the stumps of these little skin-tabs which have been incompletely removed at the time of the first operation. One should therefore cut widely and broadly in this part of the operation. Practically there is no after-treatment in these cases. The parts are dusted over with orthoform, the patient is usually given a hypodermic of morphine before he recovers from the anesthetic, and a soft compress of sterilized gauze is placed over the anus and held in position by a T-bandage. Catheterization is never employed except under the most urgent circumstances. The patient is always encouraged to urinate voluntarily either by the application of hot cloths, or by placing him upon his feet or sitting him upon the commode, if it is necessary, within the first three or four hours after the operation. Of course, there are cases in which it becomes necessary, but in the past five years less than one in ten of my patients have been catheterized following this operation.

The excision of hemorrhoids with immediate suture is not a new operation, but it has been brought prominently into view within recent years under the name of Whitehead's method. This method consists in dissecting out the hemorrhoid-bearing area of the mucous membrane, amputating it above the varicose veins, and resuturing the membrane to the muco-cutaneous border of the anus. The operation as first advised by Mr. Whitehead was tedious, bloody and difficult to many in its performance. I have seen one prominent surgeon in New York devote over two hours to this operation, and during it there was a perfect forest of hemostatic forceps surrounding the anus. Indeed, I do not think I ever saw as many artery forceps attached to one individual in all my surgical experience. These difficulties and the fact that the operation depends for its success upon primary union of the cut edges, have rendered the method somewhat unpopular in the United States. The earlier criticisms were devoted to the dangers of hemorrhage, sepsis, retraction of the mucous membrane, sloughing and stricture, and no doubt many of the attempts to do this operation by men inexperienced in rectal surgery resulted in these accidents. I have seen no less than ten strictures of the rectum following so-called Whitehead operations, but in all justice to Mr. Whitehead, I am compelled to say that most of these were done after a method far from his own. Recently I have had to repair the anus in one of these cases in which the skin was dissected away for three-quarters of an inch around its margin, and a true ectropion recti was developed. The operator claimed to have done a Whitehead operation, but Mr. Whitehead has insisted

above all things in these operations that no portion of the skin should be removed. The fact that the operation requires primary union for its most perfect success cannot be denied, but it is not a fact that if one or two sutures surrounding the anus give way the whole operation is a failure. I have time and again seen these cases in which small areas of granulation developed, where one or two sutures failed to heal, and yet most excellent results followed.

As to stricture, I am of the opinion that this results not so much from imperfect union of the edges of the wound as it does from taking away too much of the mucous membrane and thus necessitating a sort of plaiting or folding-in of the walls of the gut when this is dragged down to unite it with the mucocutaneous border. This folding-in causes a thickening and adhesion of the parts, a sort of collar, as it were, around the lower end of the rectum, in which new inflammatory material multiplies and causes a sort of fibrous ring or stricture at this point. The same condition has been seen to follow where large areas of mucous membrane have been taken off in attempts to overcome prolapse of the rectum by this method. Inaccuracy and unfamiliarity with the principles and practice of this method are, in my opinion, the causes of most of the accidents following it. As to the time required in its performance and technique, these can be much improved by a little variation in detail.

The operation is a combination of suggestions derived from my surgical confrescos. For some of them I do not know to whom to accord the credit. For instance, the fact that the mucous membrane of the rectum, together with its varicosities, can be peeled off from above downward much more easily than from below upward, was suggested to me many years ago, I think, by Dr. Parker, in the University of Pennsylvania, I afterwards heard it mentioned by Dr. Weir, but it was a fact quite familiar to me at that time. The operation, as I employ it, is as follows:

The patient having been prepared as for all aseptic operations, should be placed in the lithotomy position, with the hips somewhat elevated. The two lateral hemorrhoids are caught upon either side of the posterior commissure of the rectum and dragged down. An incision is made through the cutaneous border, and a blunt curved scissors carried upward between the mucous membrane and the muscular wall of the gut to the height of the internal sphincter. It is then worked laterally around the intestine, separating the mucous membrane from the muscular wall at this height, and from this point downward, either with the finger introduced through the wound, or by the aid of the scissors, the hemorrhoids are peeled out of their beds upon the muscular wall until the margin of the anus is reached. This being done upon either side it is an easy matter to cut the cylinder thus loosened from its attachment in the mucocutaneous border. There is usually very little bleeding at this point and what there is may be easily controlled by applying a clamp with a somewhat elongated bite circularly around the flap. The mucous membrane is then dragged down until healthy tissue is reached and the first suture is applied upon one side of the posterior commissure attaching the mucous membrane to the cutaneous border. Little by little the mucous cylinder is then amputated, sutures being placed as rapidly as the tissue is cut. These sutures serve not only to attach the mucous membrane, but also to control bleeding. I have been in the habit of dividing this suture into two portions in order to prevent puckering the rectum, as with a purse string. Recently, however, it has seemed to me better to divide it even

into four portions, as occasionally the anus seemed a little more contracted than I would like. No ligatures and no twisting of the arteries have ever been employed in this operation. Up to this period I have performed it upwards of two hundred and sixty times. In this number I have had one stricture at the site of the operation, and I have seen a stricture one year after the operation two inches above the field. This latter stricture I can in no way account for. For the first, however, there is an easy explanation. The house surgeon of the hospital, not having been present at the operation, supposed that an ordinary clamp and cautery operation had been done. Noticing a little more oozing than usual in this operation, and not wishing to be disturbed at night, he calmly proceeded to pack the rectum without introducing a speculum. As may be supposed, this packing with dry gauze tore the mucous membrane loose and carried it as a folded mucous cuff upward into the rectum. The result of this was considerable bleeding, the collapse of the patient, and I was called to him to examine for a concealed hemorrhage. The concealed hemorrhage was coming from the mucous membrane which had been carried up in front of the gauze and was in nowise compressed by it. The patient was reanesthetized, the bowel washed out and the mucous membrane sewed back in position. It did not unite, however, infection having taken place, and an ugly stricture followed. The operation can hardly be credited with this stricture. The disinclination of my house surgeon to be disturbed at night was undoubtedly responsible for it.

In a general way, however, I do not believe that this operation should be undertaken by those who operate only now and then. It requires familiarity with the anatomy of the rectum. I have actually seen the entire sphincter taken out in attempting it. It needs manual dexterity and good assistants to perform it satisfactorily. The length of time which it consumes in experts varies from nine to twenty minutes, never more than the latter, the average being about twelve minutes.

The patient is dressed with a small drainage tube surrounded by gauze and a rubber capsule is passed into the rectum and held there by a compress of soft gauze and a T-bandage. This is left in position for four days and usually occasions no inconvenience. After this it may be removed and at the end of five days the patient's bowels opened either by enemata or mild laxatives. In seven days the parts are ordinarily found to be united in all of their extent and the patient can be safely allowed to get out of bed and walk around his room. Frequently I have had patients leave the hospital at the end of the first week and go to their work without any inconvenience. There is no great advantage in this operation with regard to the amount of pain which the patient suffers over the clamp and cautery, but so far as the final healing of the parts is concerned it certainly saves from two to four weeks over either the clamp or the ligature.

In certain cases in which there are isolated hemorrhoidal masses I have recently adopted a modification of this method which consists in the application of Earle's forceps to the hemorrhoids, and suturing over them. The hemorrhoid is grasped and dragged down just as for the cautery operation. In the fold attaching it to the gut above one feels for and finds the artery supplying the tumors. A needle threaded with plain sterilized catgut is passed underneath this artery and tied, thus controlling the blood supply of the hemorrhoid. The long end of the thread attached to the needle is not cut off. The Earle clamp is then applied beneath the hemorrhoidal forceps, the tumor is cut off

above, and the suture is carried around and around this clamp, passing through two layers of the mucous membrane grasped by it until the entire wound is sutured. After the sutures are thus introduced the clamp is loosened and withdrawn and the loops tightened thus absolutely bringing together the edges of mucous membrane and eradicating the hemorrhoidal growth.

I have performed this operation something more than fifty times and at first glance it appears the ideal procedure. In one case I have noticed great spasm of the sphincter and a fibrous band surrounding the rectum just below the point at which the artery was tied. Whether this accident is likely to occur in many of the cases, or whether it shall prove a permanent disability or discomfort to the patient, I am not prepared to say, but I cannot report or advocate this operation or any other without frankly stating all accidents and complications which I have seen occur, or which it appears to me may do so. Theoretically, this operation and the Whitehead method seem to cover the ground of hemorrhoids in an ideal way, but practically their technique involves a capacity in the surgeon which is not met in every hamlet, and each possesses potentialities for evil in inexperienced hands which cannot be ignored.

On the whole, therefore, it is my practice to teach students who do not intend to make a specialty of rectal surgery, that it is their duty to avoid these operations and confine themselves to that simple, easy, safe and most efficient method, the clamp and cautery, in the operative treatment of hemorrhoids.

THE HEART IN NEURASTHENIA.

BY FRANK PARSONS NORBURY, M. D., of Jacksonville, Illinois.

It is not an easy clinical task to make a diagnosis in neurasthenia. In fact, I believe it requires keen perception and trained analytical consideration of the varied striking phenomena—the medley of symptoms—to mature a diagnosis of neurasthenia. The disease has its limitations in its varied symptomatology, but it requires subtle analysis and exact inquiry to define them. For this reason it is necessary to establish a routine method of inquiry in order to draw the lines of differentiation in this most perplexing disease.

Neurasthenia is, as Allbutt expresses it, “wheels within wheels,” “forming fairly consistent and uniform maladies subordinate to the main disease.” In separating these constellations we are called upon to use to the utmost our knowledge of physical diagnosis and clinical pathology. So dependent, indeed, are the normal functions of the body upon each other that in disease we are more apt to see an exaggeration of activity of these functions, and unless we be upon our guard we are apt to confound symptoms due to exaggerated functioning with disease. Weir Mitchell warns us “to bear in mind that sometimes in nervous people the activity of a normal function is competent to cause distress in other organs or to awaken unusual symptoms.”

The heart, of all the visceral organs, is most apt to confound us in our lack of remembrance of these wise words of caution. Not infrequently the inner wheel—the disturbed action of the heart—is taken for the main wheel, neurasthenia, and a primary diagnosis of some affection of the heart is made. That this should occur is not only possible but probable in many cases of neurasthenia and only emphasizes my belief that the diagnosis of neurasthenia is no easy clinical task. The physician is not doing himself justice, nor is he fair to his patient to attempt to

make a diagnosis in such cases without frequent and if necessary prolonged examinations. It is only by a thorough study of a case that we get down to bed-rock. The diagnosis must come first, and it is the physician's duty to use every means and all the time he needs in which to make it. I am sure if we will but proceed by the routine method of carefully written case records which we can study, we will be less apt to go astray in diagnosis and more apt to bring order out of chaos in diseases in which the nervous system is concerned.

The picture of neurasthenia is improved by the laying in of the detail—history and repeated observations. The heart is always a conspicuous object in a clinical picture, and no less so in neurasthenia than in other diseases. It is always well, therefore, to study this conspicuous subject—the heart—by routine; the data thus obtained is always more reliable and more readily used in summarizing the details of clinical inquiry. It is of most service in the diagnosis of neurasthenia, which is usually diagnosed by exclusion, the indirect method of telling what the patient has by first finding what he has not. The lines of differentiation are thus more easily drawn. The routine of the examination of the heart should be followed in ordinary physical diagnosis, viz.: the history—subjective symptoms referred to the heart, pain, palpitation, irregularity, disturbance of rhythm. Symptoms referred to the circulation—pulsation of the arteries. Symptoms referred to the lungs—dyspnea, cough, etc. Symptoms referred to the nervous system—vertigo, faintness, headache, throbbing of head, Stokes-Adams syndrome of vertigo, slow pulse, loss of consciousness, etc., etc. Symptoms referred to the digestive organs—disturbances of digestion, indigestion, gas, flatulence, nausea, vomiting. Symptoms referred to the kidneys—urine, character and frequency.

Objective Symptoms.—Inspection, area of cardiac impulse, the condition of the arteries, presence of arterial disease, a pulsating abdominal aorta especially being noted, capillary circulation.

Palpation.—Character and strength of impulse, thrills, etc.

When we summarize the facts obtained by this inquiry we find that as Allbutt well says, "we cannot consider the heart apart from its nervous connections." The nervous mechanism controlling the functional activity of the heart is complex and when sufficiently disturbed is evidenced in well-defined symptoms. Fortunately, so perfect is this mechanism that the inhibitory fibers control simple disturbances, and it is not until more profound involvement of this cardiac mechanism that we notice alterations in action.

In neurasthenia we notice changes in heart action, especially as to its rhythm. The rhythm is usually increased, rarely decreased. A fact worthy of note in differential diagnosis, for in organic diseases of the brain, such as softening, tumor or apoplexy, we find a decreased rhythm. Also in toxemia, from poisons circulating in the blood, as in uremia, we find a decreased rhythm. In neurasthenia the rhythm of the pulse is fast, irritable, and in cases occurring in advanced life, irregular. I find in young women sometimes a pulse of 110 to 120. I have one now under observation who for over eighteen months has never had a pulse of less than 110. She counts it daily herself. I take it myself at least once a week. This same patient passes from five to seven pints of urine a day, a fact emphasizing Mitchell's dictum which I stated at the beginning of this paper.

Again, action of the heart may be accelerated by pressure upon some painful point; this is known as "Rumpf's symptom." Palpitation may be present in hysteria, but with it are other notable signs of hysteria enabling a diagnosis to

be made. I have rarely seen a tumultuous heart in neurasthenia, such as seen in hysteria, where the heart tumbles about and becomes very irritable. This is probably due to the fact that in neurasthenia there is physical weakness added to the nervous disorder, hence in neurasthenia we find a weakening of the inhibition of the heart.

Dana says: "It is my belief that cardiac weakness is an important condition in many forms of neurasthenia and underlies sometimes a good many of the other symptoms." "This is particularly true of neurasthenia of more advanced life."

I find that many neurasthenics develop palpitation after taking food. This fact does not necessarily indicate that indigestion exists, but in my experience it usually does. Weir Mitchell in speaking of this says: "Digestion naturally quickens the pulse, and in these people (neurasthenics) the normal pulse passes into palpitation." But in my judgment we have other factors to consider beside the natural quickening of the pulse, one is the mechanical presence of food in the stomach. There may be gastric neuroses associated with the disturbance of the heart so marked, indeed, as to completely overshadow the neurasthenia, leading one to believe that some disease of the stomach exists. The nervous eructations, vomiting, pain and other varied phenomena are not unusual features in neurasthenia. It is well, therefore, to be on our guard and study the whole individual instead of parts, and in this way recognize neurasthenia as the real disease.

In my own clinical experience I find that fully two-thirds of my cases of neurasthenia complain of disturbance of the heart and show evidences of heart weakness. In some the heart symptoms are very prominent, so much so in fact that absolute rest and quiet are imperative to give relief to the distressing results growing out of heart weakness. This heart weakness is a physical fact, demonstrable and evident in its effects. The rapidity of the pulse varies upon exertion or excitement—sudden noises. The mere rolling over in bed has in one of my patients caused a palpitation, exceedingly distressing and persistent. In another the use of the commode caused marked palpitation which continued for several hours. The subjective feeling in both of these cases was that of impending dissolution. In other cases, especially in young women, I have noticed a rapid pulse follow a bath or massage, which occasioned no subjective feelings whatever.

I live in a college town and during the latter part of the school year I am consulted by young ladies, principally students of music, regarding disturbances of the pulse with insomnia, pain, digestive and disturbances. Subjective sensations are noticed in most of such cases and some in a pronounced degree. In all such cases I find usually other evidences of neurasthenia. Neurasthenia occurs more frequently among pupils engaged in the study of music than in any other class of students. Why this is so is self-evident—first, the most successful musicians are those who belong to the neuropathic class. They have the alert, quick perception, quick interpretation necessary to grasp the details, spirit and harmony of music. They love their work—they work long hours at it, thus adding physical fatigue to the mental unrest, and when the anxiety of approach of public exhibitions, recitals, etc., is added, then the strain is too much and neurasthenia results. Usually, the heart symptoms, the rapid pulse, are the first to attract the attention of the patient. The gradual changes go on—no improvement, other symptoms are added—the sensation of pain in the region of the heart. A

feeling of numbness in the extremities—a fullness in the head—some precordial distress—an indescribable oppression—insomnia, etc. This is the stage of irritation, and unless corrected at this period, then follows the stage of depression. Nutrition becomes impaired, the heart muscle becomes more weakened and in consequence the pulse is weakened, more excitable and even becomes irregular. Dicrotic pulse may be noticed in patients past forty years of age. This condition, according to Lehr, is due to vaso-motor change, causing diminished tension of the arteries. It is at this stage that diagnosis may become obscure and difficult. However, by closely following physical diagnosis and interpretation of symptoms, one can by exclusion make the diagnosis. “In so far as the heart is concerned, the separation of neurasthenia from organic disease is established by the absence in neurasthenia of an increase in size, or of murmur save that which may be attributed to anemia.” Again, in neurasthenia bodily effort which usually disturbs the heart action does not markedly disturb the heart in this disease. However, as neurasthenia is not a disease of the will, but a physical entity, we should not permit of physical exertion sufficient to affect the heart.

The prognosis in the heart affection of neurasthenia is of importance. How frequently, indeed, are we asked by such patients, “Doctor, have I heart disease?” And you know heart disease to a patient means a serious affliction. Neurasthenics usually have the heart symptoms until recovery is well advanced. In fact, they are the last symptoms to vanish. Recovery is usually slow, due to the fact that the whole process of recovery in neurasthenia is that of regeneration, improved nutrition and restoration of the equilibrium of the nervous system.

The treatment of the heart in neurasthenia is but the treatment of neurasthenia with attention to the details of heart care and management. The best treatment is rest, body and mind, following the plan of Weir Mitchell, modified to suit the needs of each case. I am not so much in favor of isolation in these cases as I am of diversion as a part of the rest cure. The best tonic is certainly pleasure, if it can be administered so as to meet the indications. Occupation of mind is best for such cases, and the bright story, games, music, etc., are suitable diversions for these patients. The regulation of diversions is a question in which the personality of the individual is a very prominent factor. Some patients do better amid the surroundings of home, others in institutions, and still others away from all appearances of the sick, in travel or at some seaside resort where the sea-air and varied changes of such a place do much toward promoting recovery. The detail of management of a case is largely in regulating sleep, promoting digestion, the administration of tonics, and the regulation of the bowels, careful consideration of bodily nutrition in every way. Food and sleep will promote a recovery and our duty is to so regulate the conditions surrounding the patient that will most speedily bring nourishment to the body and rest to the exhausted nervous system. “Sleep is nature’s sweet restorer” in neurasthenia, and especially so where the heart’s action is at fault. Again, bathing should be watched and carefully regulated. The cool bath in the morning and warm bath at night are potent powers for good in such cases.

As to drugs, I use but few, principally *nux vomica* and combine it with dilute hydrochloric acid in a vehicle of lactated pepsin, taken after meals. It is well to gradually increase the dosage of *nux vomica* until good effects are noticed. *Nux vomica* is a good heart tonic, also stomachic and with the dilute hydrochloric acid it regulates the stomach disturbance, promotes digestion and serves as an excellent tonic to the whole nervous system. As convalescence progresses, the patient should be encouraged to live in the open air, take exercise gradually, and thus pave the way to a resumption of duties and cares of life.

CLINICAL REPORT.

WHAT THE v. LANGENBECK OPERATION ACCOMPLISHES IN INDIVIDUALS WITH CLEFT PALATE.

BY WILLARD BARTLETT, A. M., M. D., of St. Louis, Mo.,

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The three cases to which attention is called illustrate the value of this procedure even where the operation has been deferred until the patient is fully grown (two instances), and some of the difficulties which the operator has to overcome.

The last patient upon whom I operated for this deformity is a sturdy youth of eighteen. The lip had been repaired by the late Dr. H. H. Mudd many years ago, but with the exception of this one structure, everything was divided, in-



FIG. 1.

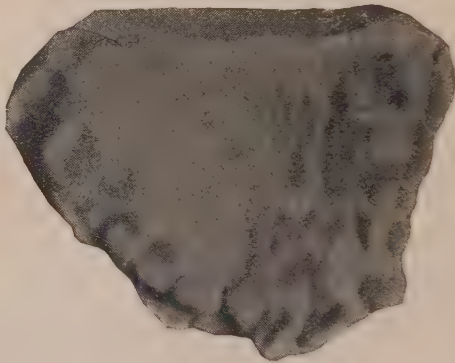


FIG. 2.

cluding the uvula. The two halves of the vault were almost vertical and the interior of the nares were perfectly exposed. Motility of the soft palate was unimpaired.

There was no pronounced catarrhal affection, the young man could swallow perfectly when the head was held well back, but the voice was so imperfect that I could not understand a word he uttered.

The v. Langenbeck operation was done at St. Anthony's hospital, March 20, 1903, under chloroform anesthesia with the head in the Rose (hanging) position. The steps of the procedure, as well as the appearance of the vault before operation will be best understood by consulting cut No. 1. This piece of work may be divided into the following steps: (1) freshening of the edges of the cleft; (2) incisions along the alveolar margins for the relief of tension; (3) elevations of the flaps (mucous membrane and periosteum) from the remnants of the bony arch; (4) section of muscles where necessary to allow flaps to meet without tension; (5) insertion and tying of sutures.

In this case I followed the classical method as above detailed and was rewarded by having every stitch, from the teeth to the tip of the uvula, hold perfectly. Silk was the material used in the uvula and silver wire everywhere else. The knives, elevators and mounted needles which I use in these cases are of my own designing; indeed I find that my ordinary surgical instruments are of little value for this work.

This patient sat up the day after the operation, but was not allowed to talk or have solid food for ten days, at the expiration of which time all the stitches were removed, primary union having resulted as above mentioned. A wonderful change is already (April 8th) manifest in the patient. He was formerly as bashful as a deformed boy could be; now he holds his head up and the tears no longer come when he is made an object of interest. The voice already mani-



FIG. 3.



FIG. 4.

festes the evidences of a marked improvement, though one would hardly expect it so soon. Now, too, the youth can swallow with the head held forward, this effort having formerly been attended by the fluid gushing out his nostrils. The perfect appearance of his palate is attested by the cast (Cut 2), to which reference is invited.

Case No. 2, that of a girl five years old, is cited merely to illustrate one of the inherent difficulties which the surgeon has to overcome when he goes into this class of work. This child had a cleft which was complete as far as the uvula was concerned, the lip being, however, intact. Her speech was much impaired, though she had learned to swallow almost perfectly. The worst feature of this case was the catarrhal involvement of the mucous membranes continuous with that of the mouth, which the patient had never overcome. The operation was done at St. Anthony's hospital October 3, 1902, under the same conditions as those detailed above. The chloroform must be held responsible for an acute bronchitis and broncho-pneumonia which ensued, and which caused the child to cough continuously for weeks. This accident led me to suppose that all was lost, but to my intense satisfaction all the stitches except the three or four of silk in the uvula held perfectly. These I shall replace at a favorable oppor-

tunity. The after-treatment of this case differs in no way from the above. As might be expected, the improvement in the voice has been remarkable, owing to the child's extreme youth.

Case No. 3, to be mentioned now, is one on which I operated at the Rebekah Hospital, April 2, 1901. It has been referred to in these columns before and is mentioned again only to show that much may be expected of the voice even though the patient be well advanced in years at the time of operation. The length of the cleft, not a complete one, is shown by the accompanying cuts, No. 3 and 4; as is also demonstrated the result, which was perfect. This woman was almost forty at the time I operated upon her, and although not more than half the hard palate was involved, the voice was affected to a marked degree. I did not hold out very glowing expectations at her time of life; still the deformity occasioned her so much discomfort that she insisted upon its repair, so I operated at the time stated. Now after two years there has been a change that is remarkable. The patient tells me that many new acquaintances never suspect her of ever having been afflicted by a cleft palate; which is putting the matter a little too strong, though there is perhaps no need of undeceiving her. At any rate, the voice was greatly improved by operation, even after she had used it incorrectly for almost forty years.

TREATMENT OF VERRUCA PLANA JUVENALIS, WITH REPORT OF TWO CASES.

FROM PROF. WILLIAM A. HARDAWAY'S DERMATOLOGICAL CLINIC, ST. LOUIS POLYCLINIC, WASHINGTON UNIVERSITY.

BY M. F. ENGMAN, M. D., and W. P. LOTH, M. D., Assistants.

CASE I.—Minnie S., age six years, came to the clinic on May 28, 1902, for relief from a very disfiguring eruption which had existed for about one year. It began with the appearance on the back of the right hand of a pin-point size, flattened, wart-like elevation, at first showing no change in color and causing no subjective disturbance. The lesion gradually increased to the size of a pin-head

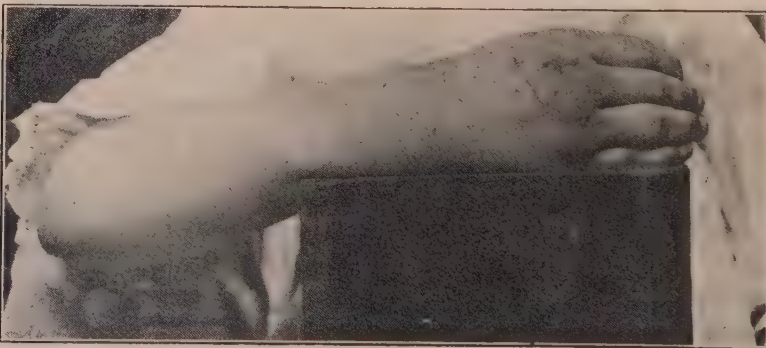


FIG. 1.

and assumed a pale pink color. New lesions soon appeared on the hands and face until their number became great enough to cause a disfigurement. When the patient was first seen the lesions were scattered over the backs of both hands, upon the right wrist, on the forehead, nose, upper part of the face and left cheek. The eruption consisted of papules, varying in size from a pin-head to one-eighth inch in diameter, were slightly elevated, most of them round, with

flattened tops and perpendicular sides, while some were oval and convex. The epidermis covering them was stretched, giving to the lesions a glistening appearance. Some of the lesions on the face showed a minute central depression, marking the site of the follicle. The papules were grouped into clusters composed of from three to twelve or more individual lesions, and on the back of the right hand a number of them were arranged in linear form, touching each other, as though infecting a pin scratch, while at each end of this line were grouped three or more larger ones. (Fig. 1.) On the nose there was evidence of an attempt at a similar formation.

Various local antiseptic applications were tried without any apparent effect. The use of salicylic acid in collodion caused a flattening of the lesions to which it was applied, but the wide distribution of the eruption made its general use impracticable. Finally, recalling the successful results reported by Crocker and Brocq from the internal administration of magnesium sulphate in similar cases, the patient was ordered to take ten grains of this salt four times daily, and was given a solution of resorcin, one-half dram to the ounce, to apply to the region involved. To our great surprise, on returning to the clinic four days later, the skin showed a marked improvement, most of the lesions presenting distinct evidence of flattening, with an entire absence of new ones. One week later, under the steady administration of magnesium sulphate and the use of resorcin lotion locally, the skin of the face had entirely cleared, while on the hands only a few lesions still persisted. When the patient was seen one month later, the only evidence of the former eruption was the presence of a few isolated, small, hard papules on the back of the hand.

CASE II.—Myrtle V., age twelve years, presented herself at the clinic on July 17, 1902, with an eruption which had been present for about one year. It consisted of pin-point to pin-head size papules, pale pink in color, on the fore-



FIG. 2.

head and scalp, arranged in clusters and lines. On the back of the right hand were a few isolated lesions. The individual papules presented flattened tops, some of them showing in the center a minute depression at the site of the fol-

liele, and most of them having a translucent, glistening appearance, apparently caused by the stretching of the epidermis. The eruption caused no subjective disturbance, and relief was sought merely because of the disfigurement. (Fig. 2.)

This patient was at once given magnesium sulphate, grains ten, four times daily, and a resorcin lotion for application several times during the day. One week later there was marked improvement, the lesions appearing to be rapidly drying, and the treatment was continued. Several weeks subsequently the improvement had progressed to a very great degree, with every indication that a complete disappearance of the eruption would soon result; an outcome which we could only surmise, however, as the patient failed to return as requested.

The fairly frequent occurrence of warts of this nature, their tendency to appear especially upon the face, and, therefore, the greater importance of their recognition and careful removal because of the cosmetic effect resulting from too active local treatment, appear to us to warrant a brief description of the lesions. They differ very greatly in appearance from the common wart found as a pea-to-finger-nail-sized growth, moderately elevated, and occurring most commonly on the back and face of young adults, middle-aged and often elderly people, and presenting a dull grayish to brownish colored, roughened, papillomatous surface, an appearance usually suggested by the term "wart." The *verruca plana juvenalis*, on the other hand, usually suggests by its appearance a lichen planus papule or the lesion of *molluscum contagiosum*. It resembles the ordinary flat wart referred to merely in its flat character. It is more like the lesion of lichen planus, with a rounded, square or polygonal base, with flat and smooth surface, rarely larger than a small pea, and usually much smaller, and generally seated upon the face, where they occur, as a rule, in large numbers. In some lesions a scarcely perceptible central depression can be detected, marking the site of the follicle. The lesions are of normal skin color, or grayish, brownish, or pinkish, either discrete or grouped, and when a number of them are very close together, coalescence may take place, resulting in a small, irregularly shaped, or even linear patch, as occurred in one of the cases here reported. While most of the lesions are flat, at times a few will show, especially when recent, a slightly rounded top. Favorite locations are the forehead, toward the temporal regions especially and the hair border, the lower part of the cheeks and the chin, and the backs of the hands, and while they are most frequently met with in children, are also at times seen in young adults. They generally come on very slowly and insidiously and are persistent, lasting almost for months or years, but are not attended by subjective disturbance.

These warts are suggestive of lichen planus, but the latter rarely occurs on the face unless the eruption is very generalized, and even then only to a slight extent, while this is the usual site for the small, flat warts. Moreover, lichen planus papules are usually larger, of a darker, violaceous color, itch intensely, and tend to form rough, scaly, infiltrated patches, features which are not observed in small flat warts. From *molluscum contagiosum* they are readily distinguished by the absence of the central depression and aperture invariably present in the former.

With reference to the etiology of warts of this character, it is generally accepted that they are mildly contagious, a view supported by cases of auto-inoculation, the frequent development of others from a primary wart, the spreading by contiguity, as observed by Morrow, Allen, Bronson¹ and others, its

spreading from one child to another, an instance of which was recently reported by Vives,² as well as the inoculation experiments by Jadassohn, Variot, Lanz³ and others, referred to by Stelwagon.⁴ However, Kuehnemann⁵ is the only one who has discovered a bacillus, with which he succeeded in producing suggestive lesions in rabbits. There appears to be no doubt that slight traumatism, excoriations, pressure and the like are contributory toward furnishing favorable opportunities for successful inoculation.

Innumerable methods have been recommended for the removal of warts, most of them by external treatment of an antiseptic, caustic or operative nature. The occurrence of lesions in such profusion, especially upon the face in children, makes the use of the vast majority of local measures advised impracticable. It is for cases of this character that we would especially advocate a trial of the method successfully followed in the two cases here reported — the internal administration of magnesium sulphate was recommended by Colrat,⁶ of Lyons, and its beneficial action confirmed by Crocker,⁷ who advises the administration of sufficient of the preparation to produce two or three evacuations daily. Like successful remedies in other affections, however, this one often fails, but its good effects certainly warrant its trial in all cases of this character. Brocq⁸ also reports favorable results from the same treatment. As for local applications, the frequent use of a solution of resorcin or salicylate acid hastens the disappearance of the lesions and at the same time acts as a local antiseptic in preventing the appearance of new lesions.

1. Morrow, Allen, Bronson: Jour. Cutan. Dis., 1899, p. 183.
2. Vives: "Verrues de Famille;" Jour. Mal. Cutan., 1899, p. 463.
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4. Stelwagon: "Dis. of the Skin," 1902, p. 517.
5. Kuehnemann: "Zur Bacteriologie der Verruca Vulgaris," Monatshefte, 1889, vol. ix, p. 17.
6. Colrat: Lyon Medice, vol. liii, 1886, p. 45.
7. Crocker: "Dis. of the Skin," 2d edit., p. 393.
8. Brocq: "Traitment des Maladies de la Peau," 2d edit., p. 852.

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EDITORIAL COMMENT.

TRUTH AND FALSEHOOD IN MEDICINE.

There has recently appeared in *American Medicine*, February 28, 1903, an article by Richard Cabot, of Boston, entitled "The Use of Truth and Falsehood in Medicine; An Experimental Study." This paper is significant, both in respect to the spirit of candor and courage with which the author treats his subject, and in respect to the method which he uses in approaching it. That a sermon on truth might be advantageous to those engaged in the practice of medicine is scarcely to be doubted, but that a moral question so fundamental as this one is should be made the subject of experiment is so striking that our attention is immediately arrested. It is a strange commentary on things medical that such a self-evident moral principle as truth telling should need so eloquent an appeal as is here set forth. It argues that a certain moral twist has come gradually among the followers of medicine, and that each new candidate for its rewards as a calling in life carries a certain amount of this moral blindness deeply rooted in his nature. Cabot's article deals with the aspect of truth in its relation to the practice of medicine; and by truth speaking he means the faithful attempt to convey a true impression, and by lying an intentional deception, however brought about. Truth and falsehood in diagnosis, in prognosis and in treatment are the several headings upon which he touches, and his conclusion, based upon his own experience as a practitioner of medicine, extending over ten years, is that he has not yet found any case in which a lie does not do more harm

than good. This result, it is to be noted, is reached by a purely objective series of experimental tests. The process by which a certain degree of falsifying has been deemed a necessity in practicing medicine is not difficult to point out. The physician in all time was regarded as possessing an amount of knowledge in respect to the diseases which he treated far beyond what was actually known. Such an assumption of knowledge was deemed essential for the good effect it might have upon the patient. In this way from generation to generation was developed this need for resorting to falsehood. To the physician himself the sense of deception involved in such a line of conduct must have always been clear. As a student, this necessity is borne upon him from the time he first sees actual patients in the clinics of his teachers to the time when he has them of his own. The example of his teacher puts the seal of his wider experience upon this departure from a correct moral attitude, so that he comes to regard an ability to lie as one of the necessary talents in following the art of medicine. As a consequence, he enters his work blind to the true moral aspect of the question, a question which, in the other personal affairs of life, his conscience is his only guide as to its solution. Outside of a few possible cases, where the absolute truth might be dangerous to the patient, and, according to Cabot, such cases scarcely exist, truth telling might be regarded as the ideal to be attained in a physician's attitude to his patients in the same way as in the attitude that one should seek to hold between himself and another in the ordinary affairs of life. Any departure from this attitude must, in the long run, carry with it the same degree of harm in medicine as in other human relations. Medicine is but a part of the many activities of mankind, though it touches them all. If falsehood is recognized as an essential principle here, by the same kind of reasoning it must hold for any other part of human endeavor. The exclusiveness which formerly was so peculiar to medicine as a calling has no place at the present time, and the more medicine becomes a science, the less reason must there be for any such demarcation. There is nothing, perhaps, so uniformly decried as a consciously false statement in respect to questions of pathology, chemistry, bacteriology, and in the other more theoretical sides of medicine, yet there is a pardon and excuse ready at hand when in the application of these same questions resort to a lie is deemed necessary. The reason for this difference in the moral attitude is that in one case we are dealing with purely material things and in the other we are dealing with a human being, for whose benefit a lie is supposed to be justifiable. If we clearly analyze our motives in such a case, it comes to us that the human being we attempt to protect is less the patient than it is ourselves. Aside from the purely personal aspect of the question, so amply and fully developed in Cabot's paper, there is another phase of it which demands consideration. It is the place which truth and falsehood occupy in the development of medicine as a whole. It must be acknowledged that upon one's attitude to a question depends, in a great measure, the possibility of its development. It is but a brief step from falsehood in respect to a patient and from falsehood in respect to the thing a patient may be suffering from. It is as brief a step from pretending to a patient that one knows from pretending to oneself that he knows. There is a sort of autosuggestion in such a scheme of action which is as indefinite in its limits as it is treacherous in its effects. Advance in science can come about only through the sincerity of its investigators, and by the sense of truth by which they are imbued. There is nothing so valuable perhaps in a scientist

as his conscience, the scientific conscience, which may be defined as the attitude of truth which an investigator has towards the subject he is studying. Has the practice of medicine, that is, the application of the facts which science has been able to bring out, been held back from its legitimate advances by the lack of such an attitude in the make-up of its followers? An answer to this question is an ever-present challenge to those who attempt to excuse the want of positive advance in the practice of medicine as compared to the progress in its scientific side on other grounds. Too great an insistence cannot be placed upon the purely personal effect which a tendency to falsify has. The moral fiber of an individual is a complex and delicate structure, and no one part of it is strong enough to permit of tampering. A man is truthful not because he tells the truth, but because his attitude toward all questions is based upon a spirit of truth, and he cannot divide his life into two parts: in one of which truth is a convenience and in the other a necessity. If this is done, there will follow more in one case than in another perhaps, but in all to some degree, a lessening of that moral attitude which science demands of its followers. To search for truth in any other than a spirit of truth is an impossibility. Cabot has amply proven that there is no necessity to cultivate a technique of lying in the practice of medicine. His service in showing not only that falsehood is not necessary, but that truth telling in the longer run is a distinct advantage, is a great one and may help us to get rid of a tradition which has done damage to medicine in general and to countless of its followers.

THE MOSQUITO QUESTION.

Major Ronald Ross' great discovery, that malaria is not a water-born, but a mosquito-born disease, has received a nearly equally important parallel by Reed and Carroll, who established the fact that a mosquito, too, was the carrier of yellow fever. It is surprising, even in our fast-living age, to observe what revolutionary changes in a few years these discoveries have accomplished; a promise for much greater results in the future. Their influence even on international relations was pointedly brought out at the last meeting of the Epidemiologic Society in London, where the Central American canal was discussed. In the United States, New York and New Jersey lead the attempts in reform according to these new revelations. The greatness of the task is understood there, as is expressed in the recently published papers of G. A. Soper, H. Clay Weeks and J. B. Smith. But at the same time the almost insurmountable difficulties to perform it are clearly indicated, and it takes the whole enthusiasm of these men to believe that in a reasonable time they will be overcome. That some time we will live in an eldorado as far as mosquito plague and good sanitary conditions are concerned, may be believed, but that meanwhile the malaria will continue to exact its tribute of human life and human energy is apparent, and it is certain that this will be so for a comparatively long time.

Other communities have paid little attention to the subject, and in our city the attempts to do something have not gone beyond the discussion of the price of a few gallons of coal oil. Certain it is, that for our city the malaria question is not an urgent one; the percentage of indigenous cases of malaria in St. Louis is very small, in spite of the thousands of patients treated for malaria.

The greatest obstacle to a complete reform in this respect—to exterminate mosquitoes, malaria and yellow fever—is, of course, the immense sum that must be expended for it. It is generally understood that only radical measures

are here of any avail. On the other side, to exterminate mosquitoes altogether is a superadded claim that, for the crucial problem, the extinction of malaria is not at all absolute. It would be very nice to be free of mosquitoes, but as a rule they do not do much harm, but only annoy us; and, furthermore, they are an important item in nature's household. Would it not be better if we directed our attention to a method by which we would kill malaria, but allowed the poor anopheles to live? Like in other problems, the sober mind of Robert Koch has accentuated in this direction a possibility of far-reaching moment; and not only this, he has directly proven that such a possibility can be made a reality. Kill the plasmodia, do not care so much for the mosquito; and if you want to be rid of them, take your time to do it.

To speak less jocularly, the medical profession could do much more to exterminate malaria than it does. We know that, although the mosquito transmits the parasite, the real danger lies in the human sufferer. Without malaria patients, the anopheles would be as harmless as our *Culex pungens*. On the other side, we know the course of the infection and the time when to attack the parasites so well, and we are so fortunate as to have for the proper time a specific remedy; we have, furthermore, in the examination of the blood (for parasites and for the characteristic histologic blood constitution in malaria) such a reliable method to control our measures, that no malaria patient ought to be dismissed who is not absolutely cured and who, therefore, does not any more represent a source of danger. If, in addition, during the period in which our patients carry parasites in their circulation, we provide for the avoidance of mosquito bites, we do everything that possibly could be done. If exposure to infection is apprehended, the prophylactic administration of quinine in the proper way is all that is necessary. Above all, malaria ought to be recognized early, as we know that in chronic infections the typical course loses much of its characteristics. A fresh infection can always be cured by a very few doses at the proper time. Adequate teaching and the condition of the necessity of blood examination would soon make the real cases of malaria apparent and prevent the promiscuous treating of so-called malaria cases in an arbitrary way, which only does harm because among these cases there may be now and then a real malaria patient.

If the community intends to take into their hands the extermination of the disease, it would be easier and more profitable to make malaria a disease surrounded with the same cautelæ and measures as the infectious diseases. If every patient could be compelled to stay, during the time of his infection, in a place secure from mosquitoes, the disease would soon disappear. Certainly, the severe and fatal cases would not occur, and an eventual infection pass off without great inconvenience. The yellow fever experience of Havana of the last two years teaches a good example in this respect.

TENDENCY TO OVERDO NEW METHODS.

Mechanical means are largely instrumental in the advancement of medicine and surgery. Indeed, much of the progress within the last half century has been due to the invention or improvement of instruments. But this very fact has induced many to depend too much upon mechanical means for diagnosis and treatment. The subjective and objective symptomatology of the patient is often neglected. It is necessary to consider the patient, not only in the light of what

may be gained by a searching investigation of a certain organ, but to take into account his whole being.

Among the more recent advances for diagnosis may be mentioned the phloridzin test and ureter catheterism. Pielicke (*Centralblatt f. d. Krankh. Harn.- und Sex-org.*) calls attention to the marked irritation of the kidneys that sometimes follows the injection of phloridzin.

Janet (*Ann. des Mal. des Org. Genito-Urin.*, February 1, 1903) says that for a differential diagnosis of ureter from bladder infection, nothing is better than ureter catheterism; but, as it is impossible to sterilize the bladder, it is a dangerous procedure, because of the likelihood of carrying infection to an otherwise healthy ureter.

Gould (in the *American Jour. of Med. Sciences*) publishes two cases of complete double ureter, quoting eight other cases from literature, and says that the anomaly of double ureter on one side is quite frequent. In fact, Munro (*Ann. Surg.*, May, 1902) publishes a case in which a ureter catheter drew clear urine from a ureter while around the catheter exuded free pus into the bladder, which was due, as found out later, to a pus-distended ureter joining a healthy ureter just before it entered the bladder. The catheter had tapped the healthy ureter beyond its junction with the purulent ureter.

Such instances as these emphasize the fact that grave mistakes may sometimes be made if too much stress is laid upon these measures of precision, and the information gained by a more general examination of the patient is neglected. They should be considered, therefore, as only one aid to diagnosis and not at all conclusive. We are often led by our enthusiasm over new methods to neglect the more general information gained from the consideration of other and more important evidences of disease.

LABORATORY FOR STUDY OF ABNORMAL CLASSES.

There is an effort in our country to establish at Washington a laboratory to study the abnormal classes. This effort has been especially endorsed by the medical profession of our country. This is in reality an endeavor to develop a work already begun in the Bureau of Education at Washington. In a little corner of this bureau this work has been carried on under many difficulties for the last ten years; it has produced six government publications on crime and related subjects, which have become almost as well known in Europe as in this country. Some of these works are used as reference or text-books in our universities, and some have been translated into different languages. In brief, this work has been well received by the medical and scientific world, notwithstanding it is somewhat of a pioneer nature, and, therefore, is liable to encounter special difficulties in the way of prejudice, ignorance, misinterpretations, in addition to the unavoidable mistakes to which all pioneer work is subject.

In the last Congress a bill to establish a laboratory to develop this work was unanimously reported by the Judiciary committees of the House and Senate, committees whose members are some of the leading jurists and statesmen of this country. In addition to such endorsements, this work in the Bureau of Education has been considered carefully by numerous religious, legal and scientific associations of highest rank, and resolutions have been passed by them favoring its development. The International Congress of Criminology of Europe, after discussing thoroughly the plan of this work, passed a resolution commending

such work, and sent copies of their resolution to leading members of Congress and of the executive branch of the Government. As this Congress consists of the chief specialists of the world in these lines, this alone should be sufficient endorsement. We have mentioned somewhat in detail the support this work has, to show plainly a most peculiar if not astonishing condition of things. Instead of this work being encouraged by the Commissioner of Education, it has not only been discouraged and quietly opposed, but even dropped out of the Government on his recommendation. In doing this he practically sets himself up not only against the medical profession of this country, but the highest authorities in these lines in the world.

When it was asked on the floor of the House why the appropriation for this work was omitted, the chairman of the committee in charge of the matter said that his committee did not go into the merits of the matter at all, but simply accepted the recommendation of the Commissioner of Education. This action of the committee was, of course, the usual one, since the recommendation of any head of a bureau is followed, especially when reductions are asked for.

Here, then, we have a federal officer in the name of the Government setting himself against the opinion and the desires of large bodies of learned associations all over our country. It is well known that the present Commissioner of Education has practically no scientific training, his life being devoted mainly to metaphysics and to educational matter. Whatever knowledge of criminology, medicine or science he may possess is theoretical or book knowledge. This is not the kind of knowledge that gives weight to opinion. And yet the opinion of this official with second-hand knowledge is allowed to defeat the wishes of numerous learned associations and specialists who have practical acquaintance with the field of work. It must be remembered also that these men are thoroughly educated men, many of them much better than the federal chief himself.

In dropping a scientific position out of the Government in this way, the Commissioner did an unprecedented act, and scientific men in the universities of our country regard it as a most effectual way of telling the public that such work, no matter how much desired and highly recommended, is not wanted in the government.

MEDICAL AND SURGICAL PROGRESS.

INTERNAL MEDICINE.

IN CHARGE OF

JESSE S. MYER, M. D.

Concerning Sea-Sickness.—BINZ (*Centralblatt fuer Innere Medicin*, February 28, 1903) concludes that sea-sickness is due to anemia of the brain, and that the shaking of the vessel causes a contraction of the arteries of the head, which brings about this anemia. Acute local anemia has here, as in other cases, a tendency to produce nausea and vomiting. He would explain the periods of rest and ease by the fact that the act of vomiting, and the violent action of the abdominal muscles forces more blood to the brain. This overcomes for a time the anemia and its consequences. The stomach plays only a passive role, and is centrally stimulated whether it contains food or not.

In the treatment of sea-sickness means must be employed which encourage a flow of blood to the brain. Of chief importance is the horizontal position. Several hours before one goes on board the vessel he should take a hearty, nutritious meal. Internally, those drugs are indicated which bring about a dilatation of the blood vessels of the brain. Of these, chloral hydrate and amyl-nitrite have been found the most efficient.

Ileus Resulting From Thrombosis of the Vena Mesenterica.—REITZENSTEIN (*Muenchener Medicinische Wochenschrift*, February 10, 1903).—The most prominent symptoms in the case here reported were the gradual development of pain in the abdomen and diarrhea, and the appearance of blood in the stools. Two days later the pain practically disappeared, the stools became less frequent, still containing blood. On the third day there could be felt in the region of the ascending colon a marked resistance. The patient rapidly became anemic and died in collapse. The diagnosis before death was that of ileus due to paralysis of the bowel following thrombosis of the vena mesenterica, which diagnosis was verified by post-mortem. In the differential diagnosis there were taken into consideration ileus due to strangulation, obturation, peritonitis and thrombosis of the mesenteric vessels.

A consideration of the symptoms described above, and the presence of pronounced varicose veins on the lower extremities, led the author to a correct diagnosis.

Acute Inflammation of the Sigmoid Flexure Due to Fecal Stagnation.—BITTORF (*Berliner Klinische Wochenschrift*, February 16, 1903), describes a series of cases of acute inflammation of the sigmoid flexure, characterized by circumscribed area of tenderness in the left iliac region with marked resistance, frequently a sausage-shaped tumor, pains in the head, back and joints, intense weakness, fever, etc.

This condition is due to stagnation of the feces in the S. Romannum, as a result of interference with the peristaltic action of this portion of the bowel. The etiologic factors are congenital or acquired weakness of the muscles, anomalies of position, stenoses, etc. The feces collect gradually in the haustra of the sigmoid flexure increasing gradually in size and becoming, through absorption, harder in consistency. The bowel becomes dilated and the mucous membrane inflamed through the mechanical irritation of the fecal mass. Most often this

inflammation involves only the mucous membrane, but sometimes produces a perisigmoiditis, and occasionally even results in abscess formation.

These cases respond promptly to proper treatment, but have a tendency to relapse if proper precautions are not observed.

A Study of Pancreatic Tumors.—EHRlich (*Muenchener Medicinische Wochenschrift*, March 3, 1903), reports two cases of pancreatic tumors: one an endothelioma, the other a sarcoma, which presented, clinically, classic symptoms of pancreatic cysts. It was even difficult to determine the nature of the tumor through the abdominal incision until the tumor wall itself had been incised. The disturbance in the abdomen was first manifested through pain more or less severe radiating toward the back. The tumors were discovered shortly after the development of the pain. The bowels were constipated and the patients lost weight and strength rapidly. They soon attained the size of a man's head, were smooth and quite elastic. The stomach and transverse colon lay in front of the tumors. Through laparotomy, the surface of the tumors were found perfectly smooth and fluctuant. Puncture revealed a brownish sero-sanguinous fluid.

All of these points are typical of pancreatic cysts, and yet in both cases the tumors were malignant. The probabilities are that the epithelioma in the one case and the sarcoma in the other developed in the walls of preformed cysts. The author suggests that malignancy should be suspected in cases of large pancreatic cysts, which are not of traumatic origin, and which are found in old people. He warns also against the employment of puncture for diagnosis, because in cases like these nothing would be gained thereby and the patient is subjected to the danger of having the peritoneal cavity filled with the contents of a malignant tumor.

Aneurysm of the Kidney.—ZIEGLER (*Centralblatt fuer die Grenzgebiete der Medizin und Chirurgie*, January 3, 1903).—Aneurysm of the kidney is one of the rarest forms of aneurysm. Its origin is often traumatic. Of nineteen cases reported in medical literature twelve were of traumatic origin and seven spontaneous. When small the aneurysm is rarely detected during life. As it increases in size it causes atrophy of the kidney. Sometimes they burst into the pelvis of the kidney and produce fatal hemorrhage. Occasionally it produces a sack into which frequent small hemorrhages take place. Bleeding and tumefaction are the important signs. Pulsation is usually absent. Pain may or may not be present. The prognosis is bad. All cases not operated on die sooner or later from this cause. Four cases have been operated on and three recovered.

The author gives a detailed history of the twenty cases which he collected from the literature.

A Case of Banti's Disease.—KAST (*Wiener Medicinische Wochenschrift*, No. 10, 1903) reports a case of Banti's disease in which certain symptoms and the condition of the blood verify the statements of Senator. Examination of the blood showed 2,500,000 erythrocytes, 5000 leucocytes, 60-65 per cent. of hemoglobin. Poikilocytes and microcytes were present. The disease is recognized clinically by the existence of a primary splenic tumor and anemia, icterus, urobilinuria, and ascites, and by a decrease in the quantity of urine.

A Study of the Etiology of Leukemic Diseases.—CHINCLAR (*Wiener Medicinische Wochenschrift*, March 7, 1903) studied a series of leukemias, and concluded therefrom that leukemia is not an infectious disease in the sense that it is produced by a specific organism, though it develops under the influence of various acute and chronic infectious diseases which affect changes in the hematopoietic organs. These alterations lead in time to an excessive hyperplasia of the lym-

phoid elements, accompanied by a migration of the leucocytes into the circulation. To the latter factor is due the clinical picture of leukemia.

A Physician's Holiday in Vichy.—TYSON, Philadelphia (*Philadelphia Medical Journal*, February 14, 1903), presents in this article a careful study of the therapeutic uses of the waters at Vichy. There seems to be a sort of elective affinity between the different waters and the organs affected.

L'Hopitæ is acknowledged the water for the stomach, Grande-Grille for diseases of the liver, and Celestins for the urinary system, etc. In drawing a comparison between the waters of Vichy and those of Carlsbad, the author believes that pure gastric derangements are better treated at Vichy, while diseases of the liver and upper alimentary canal are better treated at Carlsbad. Cases of hepatic torpor, biliary lithiasis and gout should be sent to Carlsbad; on the other hand, cases of renal lithiasis of the uric and oxalic kinds should be sent to Vichy. As to diabetes, there is practically no choice as to springs; only the mild cases are benefited at either. Vichy is especially suited to the delicate and nervous, and those to whom active treatment is harmful, while Carlsbad seems better suited to the stout, strong and plethoric with phlegmatic temperament. Persons in whom there is a tendency to looseness of the bowels should go to Vichy rather than to Carlsbad.

SURGERY.

IN CHARGE OF

WILLARD BARTLETT, M. D.

The Transplantation of Detached Skin Flaps After Krause.—WIDMANN (*Beitraege zur Klinischen Chirurgie* Bd. xxxvi, Heft 3).—In this method the skin alone is taken without the subcutaneous fat, in contradistinction to that of Hirschberg, who takes fat and all. The two main considerations for success are: (1) asepsis, and (2) proper preparation of the surface to be grafted. This new skin, like all the structures (cornea, cartilage, etc.) which have no vessels, must be nourished by diffusion, hence one must take care not to transplant upon a tissue which has no vessels. The great advantage which is gained over the older Tirsch grafts is that one succeeds thus in giving his patient a new skin which contains elastic fibers as well as papillæ, hence a covering that can be lifted from its bed as well as slipped in every direction. In some cases hair and glands remain intact, thus it is seen that entirely different results are attained than are possible in the old way. Especially is this valuable where joints, fingers, etc., are concerned. It is no longer permissible to take skin from animals or other individuals, because the first won't grow and the second may communicate disease to the new host. Stress is laid on the fact that a "dry" technique is to be used, and that the graft is to be sewn in place or else the size be one-third larger than the defect, that it may overlap considerably. Dry dressings are used, the first being changed in five days, but six or eight weeks are consumed before the healing is complete.

Symmetrical Deformity of Both Hands and Both Feet.—MAGNANINI (*Revue de Chirurgie*, No. 3, 1903).—The first of the author's cases is, he claims, unlike anything to be found in the literature of the subject. The manifestation is one of divided or cloven hands and feet, the details of which will be described later. One way of explaining the phenomena is by the theory of fetal adhesion, thus the entire hand or foot being prevented from developing at the same time.

Heredity plays an important part in such deformities; one family is quoted in which six succeeding generations were so afflicted. In this child's hand the middle finger was missing and a radiograph showed the metatarsal bone to be absent as well, in fact the split extended clear to the carpus. However, the use of the members was in nowise impaired. In the same individual the first and second toes of both feet were missing, but the metatarsal bones were there, the second being attached so the first and the third to the fourth. The author operated upon the hands and succeeded in uniting the divided portions without great trouble.

A second case is also shown, in which the second finger on both hands is absent; here, however, the split is not so high as in the first, and the x-ray shows the metacarpus to be intact, but deflected toward the third.

The Treatment of Acute Perforation-Peritonitis in Typhoid by Laparotomy and Ileostomy.—ESCHER (*Mitteilungen aus den Grenzgebieten der Medizin und Chirurgie*, Bd. xi, Heft 1).—Statistics show that certain features of the disease have a decided influence in determining the outcome of an operation for perforation. For example, when it occurs in the second or third week, there recover but 14 per cent., in the fourth week 37.5 per cent., and after this time 57.1. It would seem that the individual gains in immunity. After one perforation has been withstood, a second, pouring its fetid material into the gauze pack left from the first operation, rarely does much harm, because the peritoneum is no longer in condition to resorb much. Of the operated cases more have recovered where the perforation was not found than have under the opposite circumstances, hence the author offers the idea that perhaps the mere fact of the intestinal wound being left open favors recovery. Surely, at any rate, the possibility of ileus is removed and the diseased intestine relieved from work. Escher has had occasion to operate upon four of these cases and three recovered, although the perforation was sewn up in none of them. His idea is to bring the diseased coil to the skin wound, suture it there and then pack the cavity as well as introduce drain tubes. The most remarkable thing about this 75 per cent. of recoveries is that the operations were performed at a time when only 14 per cent. to 37 per cent. are expected to get well. The time which the operator saves by the process just proposed seems to be the least of the two advantages gained; the explanation of the writer's success must lie, as he claims, in the fact that an ileostomy, as is well known, favors recovery in peritonitis by draining the distended bowel.

Extirpation of a Cancer of the Thoracic Portion of the Œsophagus.—DEMOULIN (*Bulletins et Memoires de la Societe de Chirurgie de Paris*, Tome xxix, No. 4).—This remarkable operation was performed by Faure on the 12th of December, 1902. It was done through two incisions, one in the neck, which allowed of the exposure of the organ on the right side, and a second, which was carried between the shoulder-blade and the spinous processes of the vertebræ sufficiently long to allow of the resection of the six upper ribs. Great stress is laid upon the value of cutting the first rib; the author says that no matter how many others are divided, nothing can be accomplished until the first is cut. Through the incision in the neck it was possible to isolate a portion of the œsophagus and throw a double ligature around it. Then the chest was widely opened and a great section of the organ exposed without difficulty, there being nothing in the way except the asagos vein. After the diseased portion had been isolated, the two ligatures in the neck were tied and the tube cut between them. Next the lower one was passed into the thorax and the œsophagus stripped down by traction exerted upon this cord. The organ was next divided in like manner between two ligatures deep in the chest, and removed easily. Only two vessels had to be tied in the whole operation, after which the lower end of the upper segments

was sutured to the skin of the neck. The patient was put to bed in good shape, but grew rapidly weaker, and died the day after the operation; the cause of death was not revealed by the autopsy.

Ambulatory Treatment of Fractures of the Leg.—(*Wuerzburger Abhandlungen aus dem Gesamtgebiet der Praktischen Medizin*, Bd. ii, Hft. 9).—The conclusions to which the author comes after a long and painstaking consideration of the subject are as follows:

1. Ambulatory treatment of fractures means one thing to one and something else to another; it may mean an orthopedic apparatus, a plaster cast or some sort of extension.

2. The writer understands the term to mean merely any sort of splint which holds the fractured bone in place while the weight of the body is placed on the leg.

3. A plaster case can be used only when there is no difficulty in the reposition of the fragments or when none of the other well-known contraindications to plaster exist.

4. In a fracture of the diaphysis, both fragments are to be immobilized, and jointed or removable splints are only to be tolerated after the second week.

5. A fracture of the thigh allows of the application of a plaster case on the first or second day after the injury, but it must not be placed upon the lower leg at once.

6. The apparatus, of whatever sort, is applied best of all over underwear with no folds in it.

7. Unless the technique be perfect, the plaster case is the most dangerous form of splint.

The Lymph-nodes of the Submaxillary Salivary Glands.—BRUNN (*Archiv fuer Klinische Chirurgie*, Bd. lxi, Hft. 3).—Since it is known that cancer of the lip or tongue can recur in the submaxillary salivary gland it has become the custom in Bergmann's clinic to remove this structure along with the lymphatics. The glands studied by the author were from seven cases of lip cancer, two of tongue cancer and twenty-three cadavers in which there was no such disease. He found at the hilus of the gland and extending into it, a little septum consisting of two layers, between which the vessels enter: just here, a few millimeters beneath the surface of the gland, he saw, in a few instances, a small lymph-node hidden. This explains a case which occurred in the clinic; after cancer of the lip, a similar affection of the gland was found, not confined to the lymph-node, but having penetrated its boundaries and infiltrating the actual gland substance. It may now be said that the gland contains a lymph-node, in clinical but not in anatomical sense, since they are really separated by a light connective tissue wall. Then, to clean out all the glands in the region, the submaxillary salivary gland must be included.

Gastro-Intestinal Perforations and Their Diagnosis.—F. G. CONNELL (*The Journal of the American Medical Association*, April 4, 1903).—This article, like the one of a few years ago by the same author on a new intestinal suture, marks an advance in abdominal surgery. Here are considered first the difficulty of making a sure diagnosis from the symptoms while there is still time to do something, that is, before the appearance of peritonitis; second, disappointment and danger of a laparotomy for exploration, if the same is to be made in every case.

It is not possible in an abstract to do more than merely touch upon the author's ideas, the original article must be read for all the details of the experiments which he performed, and the inherent interest of them will repay a perusal. He bases his idea upon the injection of filtered air or saline solution into the peritoneal cavity, hoping after withdrawing the same to find changes pro-

duced by the presence of intestinal contents, provided there be a perforation; and he was rewarded for the effort, as will be seen. Control experiments with the intact peritoneum gave negative results, which makes Connell's conclusions of more value. Using air he found that the peritoneum soiled with the contents of the colon furnished evidences of sulphur combinations in every instance, but the test was negative, as one might expect, when the lesion was in the small intestine. When the perforation was in the small intestine, and saline solution was forced through the peritoneal cavity, there were found in it evidences of ammonia, peptones, bile salts and indol. These interesting results are surely of sufficient value to warrant practical application.

Which is to be Preferred, the Expectative or the Operative Treatment of Tuberculosis of the Knee-Joint?—KOENIG (*Berliner Klinische Wochenschrift*, March 9, 1903).—When the operation is done by modern methods the mortality is not higher than in the conservative form of treatment. An operation (total or partial resection) promises a rapid recovery, but a stiff joint; while, on the other hand, the methods like immobilization, injections, stagnation, etc., if they have a good result at all, give more movement but require years for the accomplishment of it. The author prefers the operative method in adults especially, and says that a man or woman so treated may return to work, as a rule, in four or five months.

Prophylaxis in the Chloroform Narcosis.—FEILCHENFELD (*Centralblatt fuer Chirurgie*, No. 7, 1903).—The author's idea is to prevent, first, the nervousness which comes before a major surgical operation. At the same time cardiac muscular affections of moderate degree as well as nervous heart manifestations are decidedly benefited. Small doses of tincture of strophanthus have all the desirable effects just quoted, according to our author, and he mentions several prominent surgeons who have taken to his way of thinking. He says that the pulse must be brought down to 80, at least, before one can operate without danger of "heart failure." If this be not possible in the way indicated, then ether is to be used, it may be with morphine.

A Case of Spleen Enlarged From Malaria Successfully Treated by Excision of the Organ.—BRIGNOLLES (*Archives Provinciales de Chirurgie*, February 1, 1903).—The patient was a woman, twenty-seven years old, who entered the hospital with a tumor so large that it filled out the entire left side of the abdomen. She had suffered from malaria for seven or eight years and considered it to be gradually increasing in severity. Her movements were so much embarrassed by the presence of the tumor that she was compelled to give up her occupation. The blood examination revealed an increase in the whites as well as a slight decrease in the reds. There were none of the classical contraindications to operation, so the abdomen was opened and the organ removed. No adhesions were found and a pedicle could be easily formed; so a double silk ligature was applied and the spleen removed. There was no hemorrhage at all, the procedure taking but twenty minutes. The patient made an uninterrupted recovery, there being but a slight post-operative change in the red corpuscles, while the whites underwent a vast but temporary increase.

Animal Experiments in the Reunion and Transplantation of Blood Vessels.—EXNER (*Wiener Klinische Wochenschrift*, No. 10, 1903).—In four dogs the central end of the common carotid was joined to the peripheral end of the external jugular, with the interesting result that the line of union was found to have contracted until the lumen of the vessel was obliterated within a few weeks after the operation. In six animals both these vessels were divided transversely in the middle of the neck and an anastomosis made between the central ends of each,

and another made between the peripheral ends. From this latter procedure it was possible to make several interesting deductions. Immediately a great distension and pulsation was seen in the vein which was exposed to the influence of arterial pressure. But a few days later a thrombus was found filling every vein so treated. Where, however, the new opening was made very small no such change occurred. Where the vein became greatly distended it let the plasma through in every instance. There is then no practical value in such surgery for the treatment of an obliterated artery. The author transplanted sections of both veins and arteries, finding as a result that thrombosis occurred in every one. This he explains by the fact that the vasa vasorum of the transplanted portions are destroyed, hence the wall is no longer nourished and the lining shed off.

Extra-Dural Hæmorrhage From Rupture of the Middle Meningeal Artery.—JOPSON (*Annals of Surgery*, March, 1903).—The author reports three cases, in two of which the diagnosis was correct and one in which it was not, but fortunately all three recovered. The first fell on the head, and presented gradually increasing manifestations of pressure upon the cerebral substance. At the operation a large clot was removed but the bleeding vessel not seen. The pulse immediately rose from 48 to 92, and the child rapidly got well.

The second case was one of contusion, and, though there was no fracture, as there had been in the first instance, the artery was found to be ruptured, and after removal of a large clot the pulse, which had been 48, rapidly rose to 72.

The third patient had suffered a severe contusion; there was no slowing of the pulse here, and, as has been remarked, there was no clot found.

The Twisting (Torsion) of a Fat Hernia and Its Results.—WENDEL (*Deutsche Zeitschrift fuer Chirurgie*, Bd. lxxv, p. 388).—There appeared in a forty-seven-year-old woman suddenly a swelling under the right Poupart's ligament, together with symptoms of strangulation; she was operated upon, when to the surgeon's astonishment there was seen to be nothing but an empty hernial sack, twisted twice upon its axis. There was present a considerable amount of fatty detritus, which is supposed to have been the result of the cutting off of circulation from the large amount of fat which had surrounded the sack in health. The author adds the remark that this is the first recorded case showing that a herniation of mere fat can cause the symptoms of incarceration.

How Can a Resection of the Rectum be Made an Aseptic and Bloodless Operation?—WENZEL (*Muenchener Medizinische Wochenschrift*, March 10, 1903).—This author is an assistant of Witzel, who has already made several original and valuable contributions to the surgery of the digestive apparatus. The patients who have escaped the perils of hemorrhage and shock have many of them died from the infection resulting from a stitch giving away after an effort to preserve the anal portion of the gut. This accident has happened as a result of the pressure of feces, or from localized gangrene. Schede's preliminary artificial anus improved the statistics mightily, but the disadvantage of this is that it requires three distinct operations. Witzel does not try to preserve the anus in any case, but makes a high amputation always and then creates a new anus in the gluteal muscles. Another distinctive feature of his method is the preliminary ligation of all three hemorrhoidal vessels, and this combination of favorable circumstances has enabled him to save every patient on whom he has operated. The author argues with a certain degree of logic when he states that the functional result is satisfactory in only a few of those rare cases in which a good anatomical result is accomplished with preserving the anus, etc., so it seems to him best to neglect it altogether, since the mortality is thus rendered so much lower thereby.

PATHOLOGY AND BACTERIOLOGY.

IN CHARGE OF

CARL FISCH, M. D.

Sarcomata and Endotheliomata.—L. BURKHARDT (*Beitraege zur Klinischen Chirurgie*, Vol. 36, Heft. 1).—Burkhardt examined, in this very extensive and careful paper, over ninety so-called sarcomata as to their histogenesis. Only the general conclusion to which this led him can here be mentioned. He finds that the old definition of Virchow of sarcomata arising from fixed connective tissue cells is not true, and that in the formation of any sarcoma the endothelia of the lymphatics, the endo and perithelia (adventitia cells) of the blood vessels take part. All of these cells have the quality to proliferate and to form connective tissue cells. The role that they play singly in the individual sarcomata varies greatly as to their quantity, but as a rule the endothelial portion predominates in all sarcomata, even in the spindle cell form; consequently, all sarcomata are more or less endotheliomata, and if the designation sarcomata is retained, it ought to be in the above represented meaning and not in that of Virchow. The starting point of sarcomata is always given in a certain number of such fibroplastic cells, that is influenced by some unknown irritation. The single cells of such a group do not proliferate with the same propensity, and thus at the peripheral portions often the histogenesis of the tumor is made visible. Sarcomata, too, do not "infect" other tissue cells secondarily; all of their cells are derived from the primary group. Clinically, also, a distinction between sarcomata and endotheliomata cannot be made. The degree of malignancy depends upon the richness in cells, their independence from the intercellular substance, and their quality of proliferation; in the main part, however, on the region of the body where the tumor is formed. The richer this region is in the supply of lymphatic structures (lymph vessels), the easier and the more persistent will be the metastatization.

The Binding of Hemolytic Amboceptors.—MORGENROTH (*Muench. Med. Wochenschr.*, 1903, No. 2).—Although from the beginning Ehrlich's main endeavor was to establish the chemical nature of the processes observed in hemolysis, bacteriolysis and immunity in general, and although he and his disciples succeeded in positively demonstrating that all of these processes are quantitatively and in other respects subject to the same conditions as other chemical reactions, it must be received with great satisfaction that it can be shown, also, that the laws of physical chemistry obtain for them likewise. As entering into the details of Morgenroth's paper would ask for too much space, it may only be said that he utilized the observation of the binding of multiple quantities of amboceptors to blood corpuscles for his study—the fact that a blood corpuscle can combine with many times the number of amboceptors that are necessary to bring about its destruction.

By changing the conditions (temperature, etc.) in which hypersaturated corpuscles were kept, he was able to show that combined amboceptors can again become free till a certain equilibrium is established, a phenomenon that can be successively prolonged until at last only the amboceptor-unit, the quantity necessary for solution, is left on them. Taking the fact of supersaturation together with this successive diffusing of amboceptors into the surrounding medium, the nature of the process appears in the light of a reversible process. We have to deal here, too, with electrically inactive substances and the electrically active dissociation products. The next step will be the study of the variations of the electric conductivity of these solutions.

The Ductless Glands as Organs of the First Importance in Vital Functions, etc.—CH. E. DE M. SAJOUS (*Philadelphia Medical Journal*, March 7, 1903).—This is a preliminary article, announcing a great work written by the author and to be published soon. It is intended, at last, with one brilliant idea, to settle the much discussed and as yet almost inexplicable nature of the functions of the ductless glands, a subject that has taxed the strength and energy of hundreds of our most eminent investigators, and that, nevertheless, has up to today remained bare of any scientific explanation. To the author of this article the conception that the suprarenal glands, the thyroid and the hypophysis, form a system regulating all of the functions of the body, explains everything. A hypothetic substance, the adrenoxin, supplies the oxygen, and its qualities are the basal factors for the proper vital conditions. Whatever the material offered in evidence for such a theory may prove to be after the publication of the book, is a matter of indifference. It is certain that the author cannot produce sufficient evidence from his own work, for this would be impossible for one man with ever so many collaborators. If the material is derived from the results of already published works of others, and is utilized in a way of which this paper gives a foreboding, we may realize a deep disappointment. However, it is perhaps good that we have the announcement of what is coming.

Infectious Epithelioses and Epitheliomata.—A. BORREL (*Annales de l'Inst. Pasteur*, January, 1903).—Under the name of infectious epithelioses A. Borrel comprises a number of exanthematic diseases, as sheep-pox, foot and mouth disease, vaccinia, variola, etc. They all have in common a predominant involvement of the stratified epithelium in the form of proliferation and secondary softening, and the fact that in none of them the causative micro-organism has as yet been discovered. All of them, however, have been the playground for parasite-hunters, and numberless formations found in the lesions have been described as protozoa, etc. (bodies of Guarnieri, etc.). Although careful investigation in no case has been able to prove these claims (including the latest publication about cultivating the vaccine virus), many still adhere to this opinion. Borrell has made a careful and beautiful investigation of the whole question on the most favorable material, and has come everywhere to the conclusion that the so-called parasites are nothing but polynuclear leucocytes, engulfed by the epithelial cells and gradually disintegrated in their protoplasm. The paper is beautifully illustrated, and the pictures are very convincing. That the peculiar formations found in molluscum contagiosum belong to the same category is probable. In a carcinoma that could be inoculated from one mouse to another (Jensen in 1902) described a similar inoculable carcinoma in the mouse). Borrel has found, also, inclusions which very much resemble the epithelioses forms, and most likely must be interpreted in the same way. It may be mentioned here that Apolant and Embden (*Zeitschr. f. Hyg. u. Infect. Krankh.*, Vol. 42, Heft 3), from the Ehrlich Institute in Frankfort, have published lately their studies on the cancer-inclusions, in which they come about to the same result—that all of these formations are products of degeneration.

Experimental Study of Ovinia (Sheep-pox).—A. BORREL (*Ann. de l'Inst. Pasteur*, January, 1903).—This paper, written by A. Borrel, is very important in several respects. Ovinia, so nearly related to variola that even today the discussion about its possible identity with it are not closed, has in Borrel's hands become very suggestive as to unsettled questions about variola. In the first place, he has, by filtering the virus through bougies, shown that it passes their pores; in other words, that the individual ovinia organism must be very minute. This, in addition with his histologic investigations (above reported), does finally away with the coccidia, yeasts, etc., said to be the etiologic factors in these dis-

eases. On the other hand, these experiments have shown the fallacy of the conclusion that organisms passing through such filters must necessarily be invisible. With the virus, diluted with tap-water, very small bacteria pass through. All of these bacteria are motile, while bacteria of equal size, but immotile, do not penetrate the filters. This throws, possibly, a light on at least one morphologic character of the ovinia and variola organisms.

By very ingenious methods Borrel was able to procure large amounts of ovinia virus, with which (on sheep) he made immunization experiments. He thus obtained a serum with remarkable neutralizing power in vitro and in the animal organism. He established not only its protective capacity, but also that the developed disease was arrested by it and deprived of its fatal consequences. The experiments have been carried on on a large scale, and are conclusive.

Tetanus Bacilli Found in Heart's Blood.—(*Deutsche Medicin. Wochenschr.*, 1903, No. 10.)—During the last few years several cases of tetanus have been reported in which it was claimed that tetanus bacilli had been isolated from places far away from the site of the infection. In artificial tetanus, too, bacilli were discovered in the blood of the animals. This observation, so contradictory to the usual teaching about the biologic behavior of the tetanus bacillus, has again found a confirmation by O. Hohlbeck, who published a case of traumatic tetanus, from the heart's blood of which he could isolate the bacilli. As certainly these occurrences are the exceptions, an explanation must be sought for, and this is most likely found in the mixed infection that in many cases accompanies tetanus. It is believed that the lymph current, produced by these secondary pus organisms, tends to carry away the tetanus bacillus also from the site of infection into the circulation or into other organs.

THERAPEUTICS.

IN CHARGE OF

ALBERT E. TAUSSIG, M. D.

Concerning Transfusion.—W. ERKLENTZ (*Ther. d. Gegenw.*, 1903, No. 1).—The most important factor in the beneficial influence of salinetransfusion is the dilution of the toxic substances circulating in the blood, and their more rapid excretion by means of the kidneys. The solid constituents of the urine are considerably increased after transfusion. Experimentally, also, it has been shown that after intoxication by means of a variety of substances, the poison is more rapidly excreted after transfusion than is otherwise the case. The most effective saline solution for this purpose is not the isotonic one (0.9 per cent.), but the one in ordinary use (0.6 per cent.). The condition of the kidneys is of the utmost importance for the success of this procedure. If they have been too severely injured by the poison, the good effect of transfusion is rendered impossible. The best results were obtained in cases of sepsis, uremia and severe anemias, which last are now considered as of toxic origin. In cases of sepsis the procedure is followed by a fall of temperature and a diminution of severity of all the symptoms. In a case of malignant endocarditis with extremely painful metastases in the joints, both the pain and the swelling disappeared almost at once. One patient, comatose from puerperal sepsis, regained consciousness; another was entirely cured by means of systematically conducted transfusion. In uremia, too, the good effect was prompt. A plentiful diuresis set in, the urine having a high specific gravity in spite of the large amount excreted. In anemia the results were always satisfactory. In one case, that of a man nearly moribund, a prompt change for the better, ending in recovery, took place.

The transfusion should be administered continuously. It is best, so long as the disease has a serious aspect, to inject subcutaneously one or two litres once or several times daily. The fluid should have a temperature of 40° C. (104° F.), and the entire quantity (1 to 2 litres) should be introduced in a brief space of time, its rapid absorption being promoted by means of massage. If a rapid effect is desired, the solution should be given intravenously. Here, however, it is well to use an isotonic solution (0.9 per cent. or 0.92 per cent.), to prevent injury to the corpuscles. [The interesting feature, in this case, is the large quantity of solution used. Where there is cardiac weakness—and this complication is not unusual in such cases—the procedure would seem not to be free from grave danger, owing to the possibility of acute dilatation of the right ventricle.]

The Absorption of Fat in the Rectum.—BAUM (*Therap. der Gegenw.*, 1902, No. 9; *Zentralbl. f. inn. Med.*, 1903, No. 6).—If iodipin (an iodized fat) is administered by the mouth, or if iodide of potash is given per rectum, iodine appears in the urine in ten to fifteen minutes. Accordingly, the appearance of iodine in the urine, after the administration by enema of an emulsion of iodipin, is a reliable index to the absorption of fat in the rectum. The test shows that this absorption hardly begins until fifteen hours after its administration. However desirable, then, the administration of fat per rectum might appear, the impossibility of its absorption into the organism makes its addition to nutrient enema entirely irrational.

The Internal Treatment of Cholelithiasis.—L. ALDOR (*Archiv. f. Verdauungskr.*, 1902, No. 6).—It is now generally recognized that a chronic inflammation of the gall-bladder, of an infectious origin, is always an etiological factor in the production of cholelithiasis. A radical cure, therefore, does not consist in the operative removal of the concretions, but in a cure of the cholecystitis. The former may well be followed by relapses, if the inflammation of the gall-bladder persists and causes the formation of fresh stones. The disappearance of the cholecystitis, on the other hand, may be followed by freedom from attacks of colic for many years or even permanently, even though stones remain in the otherwise healthy gall-bladder. The writer, therefore, is opposed to early operation in all cases of cholecystitis. He divides such cases into two classes—uncomplicated cases, in which no irreparable changes have taken place in gall-bladder or ducts; and complicated cases, in which the lesions (empyema of the gall-bladder, purulent cholangitis, peritoneal involvement, hepatic cirrhosis, etc.) are irreparable. The latter group fall within the province of the surgeon, the former within that of the practitioner of internal medicine. The writer agrees with Kehr and Naumyn in holding that the only efficient internal treatment of cholelithiasis consists in the Carlsbad cure. This cure need by no means be carried out in Carlsbad, but a carefully and correctly carried out regimen is essential to success. The usual Carlsbad cure, in which the patients drink their water while continually walking up and down, is not only improper in these cases, but is directly contraindicated. We wish to overcome a chronic or subacute inflammation of the gall-bladder, and for this purpose the first indication is rest. The writer puts his patients permanently to bed during the entire treatment. From 7 A. M. to noon and from 2 to 7 P. M. he orders compresses as hot as can be borne applied to the region of the gall-bladder. Every two hours the patient is given 100–200 c.c. Carlsbad Sprudel water at a temperature of 120° to 130°, so that in the course of the day he takes 700 to 1500 c.c. With the exception of highly-spiced food the patient is allowed to eat what he pleases. The treatment is continued until all tenderness to pressure has disappeared from the hepatic region, which usually requires about five weeks. He believes the effect of the Carlsbad water to consist in some anti-catarrhal activity which it is empirically known to possess, but the nature of which is not yet understood.

A New Use For Thyroid Extract.—EUGENE FULLER (*The Medical News*, 1903, No. 9).—The writer reports three cases in which the internal administration of thyroid extract cured an otherwise uncontrollable hemorrhage.

CASE 1. A fifteen-year-old Hebrew boy. Four of his mother's brothers had bled to death following circumcision performed as a religious rite. The two elder brothers of the boy had likewise bled to death following circumcision. On account of this terrible experience the father had refused to permit the rite to be performed upon this child or upon his younger brother. The boy's history was that of a typical sufferer from hemophilia, and when seen by the writer he was slowly bleeding to death from a persistent hematuria. All the usual modes of treatment proved unavailing. His pulse was 130 and very weak. He was extremely cachectic, very weak and death seemed imminent. As an experiment five grains of thyroid extract were ordered three times daily. After the second dose the bleeding ceased. During the past nine months neither the hematuria nor any other loss of blood has recurred, the patient having taken the drug continuously. He is much stronger, has a good color, is more alert mentally and has grown both in weight and height.

CASE 2. The younger brother of the preceding. He had had as yet no severe hemorrhages, but moderate bleeding followed the slightest contusion, and he had more than once suffered from the swollen joints characteristic of the hemophilic tendency. Two and a half grains of thyroid extract three times daily remedied the latter affection and for the first time in his life he has been entirely free from subcutaneous and other hemorrhages.

CASE 3. A nephritic, suffering from intractable bleeding from the prostatic sinus. An operation having proven of no avail, thyroid extract was prescribed with little or no hope of success. The beneficial effect was prompt. The bleeding ceased nearly at once and has not returned.

The writer realizes that a few cases such as the above do not suffice to establish the value of thyroid extract in cases of intractable bleeding, from whatever cause. Owing to the rarity of such cases, however, no single observer can hope to use the medicament on enough cases to establish its value. The results already obtained, however, certainly warrant its use by others in similar cases.

An Easy Method of Administering Sulphate of Quinine to Infants.—BORDE (*Gaz. hebdomadaire des Sciences med. de Bordeaux*, 1903, No. 9; *Gaz. des hopitaux*, March 3, 1903).—Quinine may be given to children too small to swallow pills or capsules, without the bitter taste appearing in the least, by treating the drug as follows: One gram of sulphate of quinine is well mixed in a mortar with eight grams of olive oil. Twenty minims of this mixture, as measured in the ordinary minim graduate, contain five centigrams of the quinine and twenty-seven minims contain one grain. The oily mixture is poured into a tablespoon nearly full of cold milk, preferably sweetened. The oil floats on the surface as a small bean-shaped mass, and the whole can now be swallowed by the infant without exciting any bitter taste. If in addition one takes the precaution of having him take a swallow of water or of any other liquid after taking the medicine, a very faintly bitter after-taste which sometimes ensues is prevented. The quinine-oil may also be given without the milk. The oily droplets roll down the tongue without spreading and give rise to a faintly bitter taste that is hardly disagreeable. Quinine may by this means be given to small children at frequent intervals without meeting with any opposition on their part. Any one who has experienced the comparative inertness of the so-called tasteless preparations of quinine will welcome the above suggestion.

The Common Basis of the Various Methods of Treating Pulmonary Phthisis.—HUGO WEBER (*Therap. Monatsch.*, 1903, No. 1).—A very brief consideration will show that the various methods of inhalation can never cure consumption. Even

if the antiseptic vapors penetrated into the alveoli themselves, they would yet be unable to reach the tubercle bacilli. The latter, even in the earliest stages of the disease, lie in the interstitial tissue of the lungs, and produce their nefarious effects there. Moreover, none of the vapors reach the lung in a concentration sufficient to affect the vitality of the tubercle bacillus, even if they could reach it.

A similar logical error, the writer believes, lies in the creosote therapy, according to Sommerbrodt. The latter had noted that small doses of creosote increased the appetite and digestive power of his patients and led to many cures. Believing that the greater the dose the greater the effect, Sommerbrodt and his followers have advocated enormous doses of creosote on the theory that in some way the creosote reached the lungs through the blood stream, and thus affected the vitality of the tubercle bacillus. The ill effects upon the digestive tract of these large doses of creosote have resulted in the production and use of large numbers of creosote compounds and derivatives, whereby the therapy of phthisis has been still further seduced from its proper path.

The good results obtained by means of the tuberculin injection, particularly during the first month and years of its use, the writer explains as follows: For obvious reasons, while the drug was still in its experimental stage, clinic patients were used—consumptives who at home often could not get enough even of the poorest food. In the hospitals, under a rich and plentiful diet, in spite of rather than because of the tuberculin injections, the patients rapidly gained in weight and strength, and were often discharged cured. In private practice among the well-to-do the results of tuberculin injections have, according to the writer, proven nearly nil.

Similarly, as regards sanatoria, the good results obtained there have in no wise been due to their location or to the hygienic and hydropathic procedures there in vogue, but solely to the proper attention paid to the feeding and digestion of the patients. The latter the writer considers the cardinal point of the treatment of phthisis. The physician who desires successfully to treat consumption must become a stomach and bowel specialist. If his patient eats heartily and digests his food well he will recover.

Another factor strongly emphasized by the author is the bactericidal property of venous blood. Hamburger has shown that venous blood has a far greater bactericidal power, especially as regards the tubercle bacillus, than arterial. This explains the good results of Bier, who successfully treated bone tuberculosis by means of artificial venous stasis, maintained for long periods of time in the affected limb. This being the case, the greater the amount of carbon dioxide in the pulmonary blood of a consumptive the better his chances of recovery. Of all foods, levulose is the one most readily split up by the body into carbon dioxide and water. It thus acts not only as an excellent food, but loads the venous blood with carbon dioxide. A still more active means of obtaining the latter results is by the subcutaneous injection of liquid paraffine, which, according to Meyer, is rapidly absorbed and burnt into carbon dioxide and water. The treatment of pulmonary phthisis may thus be put into the single phrase: "Enable your patient to eat and digest large quantities of food, especially such as is readily converted into carbon dioxide." The writer's total neglect of sunlight, fresh air and other hygienic requisites in his discussion of the subject will hardly meet with general approval.

GYNECOLOGY AND OBSTETRICS.

IN CHARGE OF

HUGO EHRENFEST, M. D.

Against Drainage.—R. OLSHAUSEN (*Zeitschr. fuer Geb. u. Gyn.*, vol. xlviii., part ii.).—This most interesting article is an emphatic assertion that drainage is a superfluous, if not dangerous, procedure in almost all gynecological operations. The writer bases his deductions upon the results obtained in 1,555 laparotomies performed by him within the last six years. Only in nine instances drainage was resorted to, including three cases in which tamponade was unavoidable on account of otherwise uncontrollable hemorrhage. His article contains numerous histories of cases to show that rupture of pus sacs during operation, the necessity of leaving behind parts of walls of cysts or fragments of tumors, injuries to the bladder or intestines, etc., etc., do not necessarily demand drainage of the peritoneal cavity. Olshausen denies, from a theoretical standpoint, the propriety of any reliance in the efficacy of a drainage tube. In his opinion the results of unaseptic operations within the abdominal cavity are largely dependent upon the dexterity of the operator. A contamination of the peritoneum by escaping pus during operation must be carefully avoided by the use of gauze packing. Special caution is to be taken in stopping all hemorrhage. Lesions of bladder or intestines, if they occur, are scrupulously closed and covered with peritoneum. He emphatically objects to flushing of the abdomen after operation. In gynecologic surgery he finds a justification for the use of drainage only in cases of perityphlitic abscesses and in suppurations situated in the parametria or the cul-de-sac, in the latter instances the drainage being established best through the vagina.

On Drainage.—M. HOFMEIER (*Centralbl. f. Gyn.*, 1903, No. 8).—The writer corrects an error made by Olshausen in quoting Hofmeier's statistics on drainage. In 866 laparotomies he used drainage in but 4.5 per cent., not, as alleged by Olshausen, in 18 per cent. of all cases. Hofmeier accepts for the main part Olshausen's conclusions, but finds ample justification for drainage in all cases in which there remain large cavities, lined by ragged and infiltrated walls that do not fold together and cannot be brought together by sutures. These conditions are often encountered after removal of a large pyosalpinx, or a hematocele firmly adherent to the intestines or the pelvic wall.

Drainage After Laparotomy.—A. SIPPEL (*Centralbl. f. Gyn.*, 1903, No. 6).—Sippel refuses to accept all of Olshausen's conclusions, arguing that a number of Olshausen's patients had died, and that the inference is permissible whether or not some of these patients could have been saved by the employment of proper drainage.

The Nature of Hydrosalpinx.—CLEMENT WHITE (*Jour. of Obstetr. and Gyn. of Brit. Emp.*, March, 1903).—That hydrosalpinx is a retention cyst most authors agree. That some cases are little more than a catarrhal salpingitis with an excessive amount of fluid retained, may be admitted. That some are due to an edematous condition in final stages of kidney diseases is also probable. That some are due to peritonitic closure of the tube, otherwise healthy, seems to be true. The writer believes, however, that it may be found that many of those cases in which the appearance of the ostium is such as is commonly described as due to "salpingitic" closure of the tube are cases of impervious ostia, due to faulty development. In the author's experience, in too large a proportion of cases to be negligible, the clinical history is not the history of a salpingitis, but

is often marked by an absence of symptoms, and the symptoms which are present are such as are found in cases of malformation, namely: sterility, pain, scanty menses, dysmenorrhea and dyspareunia.

Death of the Fetus Before the Onset of Labor, Due to Compression of the Cord.—A. BRINDEAU (*Bullet. de la Soc. Obstetr. de Paris*; rev. *Jour. of Obstetr. and Gyn. of Brit. Emp.*, March, 1903).—Three cases are recorded in which the fetus died *in utero* before the onset of labor, death being due to compression of the cord, which was, in each case, wound several times around the neck. The author notes the following points of special interest: Severe abdominal pains before labor commenced, which he thinks may have been due to traction on the placenta during uterine contractions. In one case the fetus presented by the face, and it is possible that the cord may have been compressed between occiput and back. Death has been sudden in two of the cases, as the fetus had expelled meconium.

Does the Transverse Fundal Incision in Cesarean Section Offer Any Advantages Over the Median Incision?—F. CURSCHMANN (*Monatsschr. f. Geb. u. Gyn.*, vol. xvi., part 5).—The author subjects the one hundred and nineteen cases of transverse fundal incision after Fritsch, so far recorded in literature, to a thorough scrutiny regarding the various advantages claimed for this modification of cesarean section. The percentage of cases in which the placenta was met with in the fundus, the character of hemorrhage, the amount of difficulty in extracting the child, the mortality, the morbidity during the puerperium, the conditions found at the occasion of a repeated operation, the length of the uterine incisions and other points of interest are considered. The author draws from his studies the following conclusion: From all the different advantages claimed for the transverse fundal incision only the one can be confirmed, namely, that this incision in a greater percentage than the median incision avoids the placenta. This small gain is, however, more than counter-balanced by a number of little advantages offered in the old longitudinal median incision.

Uterine Hemorrhages in Non-Chronic Gonorrhea.—JOHANSEN (*These de Paris*; rev. *Centralbl. fuer Gyn.*, 1903, No. 8).—From a consideration of twenty cases of Professor Pozzi's clinic, the writer concludes that in dealing with such hemorrhages discrimination is to be made between acute and chronic forms of infection. Menorrhagia and metrorrhagia, with or without pain, may be encountered in an early stage of the infection. Manual examination or exploration with the uterine sound will be negative. In such cases the treatment consists in rest in bed, hot vaginal douches and very careful application of antiseptics to the cervical canal. Intra-uterine treatment is very objectionable, curettement a dangerous procedure.

Relation Between Diseases of the Bladder and Uterine Myomas.—W. HAHN (*Muenchner Med. Wochen.*, 1902, No. 40).—Uterine myomas are capable of producing various disturbances and pathologic changes in the bladder, ranging from simple encroachment upon its capacity to complete retention of urine with subsequent dilatation of the ureters and pyelitis. Even in the absence of the typical symptoms of myomas, such disturbances in the urinary system may offer an adequate indication for operation.

(In the number of November, 1901, of this *Journal* (page 548) I had occasion to review a report of Mailland on a sudden rupture of the bladder, due to continued pressure exerted by a fibroma of the uterus.—EDITOR.)

PEDIATRICS.

IN CHARGE OF

ALFRED FRIEDLANDER, M. D.

External Œsophagotomy for the Removal of Foreign Bodies From the Œsophagus in Children.—GROSS (*Rev. Mens. des Mal. de l'Enf.*, February, 1903) has collected fifty-seven operative cases from the literature, ten of which resulted fatally. He contributes a careful study of the operation and its technique (which does not lend itself to abstract). His general conclusions follow:

1. The operation is one of urgency in childhood as in adult life; its gravity depends upon the seat and character of the foreign body, as well as upon the length of time it has been impacted in the gullet.

2. The indications for operation (now more extended than formerly) depend primarily upon the information given by radioscopic examination, which should be made systematically in every case.

3. The position, form and nature of the foreign body being known, the surgeon decides whether the operation should be done at once, or whether tentative attempts at removal per vias naturales should be made. If the latter are not immediately successful, however, the operation should be performed at once, as temporization or renewal of the attempts are most apt to lead to serious accidents.

4. The technique of the operation does not offer special peculiarities in the child, except that owing to the smallness of the field the operation is rendered more difficult.

5. The principal indication of the after-treatment is to secure sufficient and ample nourishment to the child.

Causes of Death in Diphtheria.—KOHN (*Pediatrics*, February, 1903) says that death in diphtheria is due to (1) mechanical causes, (2) the action of the toxin on the system, (3) one of the complications.

Of the mechanical causes, asphyxia is the most important and results from closure of the glottis. When it occurs early, spasm of the hypersensitive laryngeal muscles may be the cause of the stenosis. Later on the effects of swelling and exudate become more marked, until in the last period the stenosis is due altogether to false membrane and œdema, spasm now playing no role.

The toxæmic form of death is due to an intoxication of the system and consequent depression of all bodily tissues by the toxalbumins elaborated by the bacillus. Death may thus occur at the height of the local process.

Frequently in diphtheria a mixed infection is present, and in these cases death may be due to streptococcus septicæmia. It is just in these cases that complications are apt to arise.

Of these, bronchopneumonia is the one most to be dreaded. It is most often but not always found in cases with laryngeal involvement. Various germs may act as the exciting cause, the one most frequently present being the streptococcus. Bronchopneumonia may supervene at any stage, even during convalescence.

Diphtheritic nephritis usually runs a favorable course, but in septic diphtheria may be the cause of death.

Heart failure is a common cause of death. Cardiac complications may occur at any stage in any kind of diphtheria. The symptoms may develop insidiously, or death from heart failure may occur without premonitory warning. The cause of heart failure is not the same in all cases. Cardiac thrombi occur often; more often death is due to myocardial degeneration. All varieties of change from simple fatty to complete hyaline degeneration of the muscle are found. In some

cases cardiac paralysis is due to the status lymphaticus, hypoplasia of heart and aorta, with hyperplasia of thymus, spleen and lymphoid tissues.

Changes in the nervous system, leading to cardiac or respiratory paralysis, may cause death.

The combination of diphtheria with other infectious diseases, measles, scarlet or typhoid, explains the fatal issue of some cases.

Leucocytosis in Measles and German Measles.—PLANTENGA (*Arch. de Med. des Enf.*, March, 1903) has investigated the blood conditions in these two affections. His cases were taken from private practice. Systematic blood counts were made of all the children in families where only one had sickened. Many of the other children later developed one of the infections, and the author was thus enabled to study the blood state before, during and after the development of the exanthemata. The white cells only were counted. The Thoma-Zeiss counter was used, but a special diluting fluid was used.

R	Solution osmic acid, 1 per cent.,	
	Solution chromic acid, 1 per cent.	aa 10.0
	Glacial acetic acid.....	1.0

This fluid allowed a differentiation (without staining) between the polymorphonuclear neutrophiles and the lymphocytes.

In all, twenty-nine cases of measles and nine cases of roetheln were examined.

These examinations led to the following conclusions:

In measles during the period of incubation there was a distinct and constant leucocytosis, running up to twenty thousand whites, the polymorphonuclears averaging 75 per cent. of these. During the period of exanthem the leucocytosis was succeeded by a marked diminution in the total number of whites (leucopæmia). At this time there is a relative increase in the number of lymphocytes corresponding to the acute adenopathy.

After the exanthem had faded, the number of whites returned to the normal, except in the cases with complication.

The same series of blood changes was found in roetheln which appears to the author, thus affording testimony as to the identity of these two affections. [A view that is certainly not held by the majority of writers today.—ED.]

In view of the fact that these blood changes occur during the period of incubation, and, therefore, before signs have presented themselves, the author believes that the blood examination may be of great value in early diagnosis, and, therefore, prophylactically.

The blood examination may also be of value in the differentiation of measles and scarlet, or of measles and other morbilliform eruptions.

The author advances as a hypothesis, that measles and roetheln are due to different degrees of virulence of the same germ, possibly having different ports of entry in the two affections.

Cyclic Vomiting in Children.—ELY (*Jour. Amer. Med. Ass'n*, March 28, 1903) says that this affection is a neurosis occurring in gouty or neurotic children, due to toxins from faulty metabolism and faulty kidney elimination. The attacks show a tendency to periodicity, and have no connection with dietary errors or indigestion.

The vomiting is severe and protracted, prostration is extreme, and there is fever of an indefinite type. The urine is loaded with amorphous urates and uric acid crystals. Absence of abdominal symptoms and of disturbances of the stools serve to differentiate the condition from ordinary bilious vomiting. Vomiting due to organic disease of stomach, brain (and meninges) or kidneys is to be differentiated from this condition by the concomitant symptoms.

The treatment is sedative and eliminative. As sedatives, hypodermic injections of morphia and atropine hold the first place. In milder cases the internal administration of cocaine and Fowler's solution may be of benefit.

Elimination is best accomplished by the use of calomel, in conjunction with high saline enemata.

Very little food should be given by mouth, and this preferably by means of the stomach tube.

In the interim between attacks attention must be directed to the treatment of the underlying cause.

The Use of Sterilized Linens in the Treatment of Cutaneous Infections of Nurslings.—WEILL and AGNEL (*Rev. Mens. des Mal. de l'Enf.*, March, 1903), in the effort to prevent spread of skin infections among the nurslings in hospital, have resorted to the use of sterilized bed linen and clothing. Various other measures, such as washings with various antiseptics, use of dusting powders, precautions taken by attendants to keep their own hands clean, had not been efficacious. The bed linens and the clothes are brought to the bed sterilized in packages, applied by nurses with surgically clean hands. Full details of the method (which does not appear to be very time-consuming) are given.

The authors report the following results (the system having been tried for nine months):

(1) Infection of the healthy skin is prevented. Until recently head infections were common, because the head had not been protected. Since the introduction of sterilized bonnets the infections have ceased.

(2) Cachectic ulcerations, occurring in the course of athrepsia, or in the cachexia of prolonged gastro-intestinal infection, have been markedly diminished in intensity. There have been no erysipelatous or lymphatic inflammations, which were so frequently the case formerly.

Skin lesions existing at the time of entry to the hospital have been very favorably influenced in the course and their treatment has been more satisfactory.

The authors believe that the method is one which yields excellent results, without being very difficult of application.

Vaccination During Whooping-Cough.—POCHON (*Rev. Mens. des Mal. de l'Enf.*, March, 1903) reports a case of severe whooping-cough which resisted absolutely all the usual forms of treatment. The patient was a child of five months, and the exhaustion became so severe finally that hypodermic stimulation became necessary. At this time, in the third week of the disease, the child was vaccinated. Within five days the vaccination proved successful, and the paroxysms diminished remarkably both in number and intensity.

Improvement continued, but a complete recovery did not ensue for several weeks.

The author refers to twelve cases of pertussis vaccinated by Dietrich at the height of the disease. Three were promptly cured, seven cases showed marked amelioration, the other two showed no improvement.

[No explanation as to the action of the vaccination is offered.—Ed.]

NEUROLOGY.

IN CHARGE OF

SIDNEY I. SCHWAB, M. D.

Thoughts on the Neurone Theory.—HAENEL (*Berl. Klin. Wochenschr.*, Nos. 8 and 9, 1903).—This discussion of the neurone theory presents a very good analysis of some of the recent work on the nerve cell, including an account of Bethe's, Held's, and Nissl's investigations, and also mentions the experiments of Munzer and Bethe on the autogenetic regeneration of nerves. For these reasons the conclusions of the author are worthy of some attention. They are as follows: The neurone theory as it was first advanced in the way of a cellular unity of the nervous system can no longer be held to be true. The individual neurones can no longer be regarded as anatomically sharply separated from one another, but they must now be considered as bound together by the primitive fibrillæ. In place of the former conception of an anatomic cellular unity, the unity of an organic physiological kind better fulfills the modern conception of physiology and embryology. It likewise as easily as the other conception explains the pathological facts which were formerly regarded as such definite proofs of the correctness of the neurone theory as it was at first conceived. In other words, in the place of an anatomic unity, a unity based upon function is substituted. To such units the author proposes to apply the term Ergon. This term will mean the morphological element of the nervous system. Perhaps this conception will lead to the long desired result which so much of the controversy in regard to the question has had for its purpose, namely, to develop the neurone theory out of the rigid framework which before enclosed it.

A Report of an Epidemic of Acute Anterior Poliomyelitis.—WOODS (*Occidental Med. Times*, March, 1903).—A brief account of an epidemic of this disease, which took place in San Francisco in 1901 and 1902. The cases were especially prevalent during May and June. Brief clinical histories are noted of twenty-five cases. Most of them are under three years of age. There were nineteen males and six females. The mode of onset was nearly the same in all cases and the distribution of the paralysis was usually limited to the lower extremities. The tibialis anticus showed itself especially vulnerable to the disease.

On the Lip Reflex (Mouth Phenomenon) of Newborn Children.—O. N. THOMSON (*Rev. of Neurol. and Psychiatry*, Vol. i, No. 3).—The author noted, while studying the question of facial irritability in infancy, a reflex which has received but little attention. This reflex is best elicited by a series of gentle taps on the upper lip, a little above the angle of the mouth, or on the lower lip a little below it. On so tapping there is first of all a slight momentary jerk. The lips close, become deliberately pursed together, so as to pout a little. As the tapping is repeated, the protrusion of the mouth becomes more and more marked. This reflex seems to occur in all healthy newborn babes, when they are sound asleep. It is not as a rule present when the baby is awake. After the third or fourth year it is uncommon.

A Contribution to the Clinical Importance and Pathogenesis of the Babinski Reflex.—W. SPECHT (*Monatschr. fuer Psychiatrie u. Neurolog.*, No. 2, 1903).—This paper is an important contribution to the ever-growing mass of work on this subject. The reflex known under his name was first published by Babinski when he summarized his experiments as follows:

(1) Plantar stimulation always causes in normal individuals a flexion and never an extension of the toes. (2) In cases of disturbance of the pyramidal system, an extension of the toes, especially of the big toe, results when the plantar surface of the foot is stimulated. The material upon which the present paper is based consists of 430 cases, 359 of which were individuals with an organically sound nervous system. In seventeen of these cases the pyramidal tract was affected, and in twenty-two there was a probable affection of this tract. Thirty infants were included in this series, a case of epileptic coma and of hysterical paralysis also. In every one of the seventeen cases the Babinski reflex was present in its typical form. The conclusion derived from a study of this material is as follows: The Babinski phenomenon in organic disease of the nervous system can be regarded as a certain evidence of degeneration in the pyramidal tract. In such cases in which an organic disease does not exist, it can be regarded as the expression of a functional disturbance of this tract.

Treatment of Epilepsy According to the Method of Toulouse-Richet.—HALMI and BAGARUS (*Psychiatrisch-Neurolog. Wochenschrift*, No. 48, 1903).—This is a further contribution to the therapy of epilepsy according to the most recent methods. The reports have so far been in the main favorable. The conclusions reached in this paper are just the reverse and for that reason deserve mention. The method, as is well known, consists in the withdrawal of NaCl from the food of the patient and replacing this by sodium bromide or other bromide salts. In this way much larger doses can be given without any bad results. In order to judge of the efficacy of any treatment of epilepsy, the authors have formulated the following principles: (1) If epileptics with a large number of attacks and a large proportion of the cases themselves can be cured; (2) If the improvement is due to the treatment and is independent of spontaneous remission, and if it is not due to other indirect sources of therapy; (3) If the results of the therapy are lasting and have existed for a longer period of time than improvement obtained by any methods previously tried. Fifteen patients were treated in this way, nine with more than twelve and six with three to six attacks monthly. The conclusion is as follows: The Toulouse-Richet method of treating epilepsy neither cures nor improves the patient. Although the withdrawal of chlorides from the food causes a more prompt action of the bromides and a stronger effect from them, yet the stronger effect of the drug leads to a greater likelihood of bromide poisoning. Thus the method should not only not be recommended, but it is distinctly to be regarded as dangerous.

GENITO-URINARY SURGERY.

IN CHARGE OF

H. McC. JOHNSON, M. D.

Critical Review Upon the Laws of the Formation of the Sexes.—GUIARD (*Am. des Mal. des Org. Genito-Urin.*, January 15, 1903).—The study of the laws which preside over the formation of the sexes is naturally an interesting one, and the question is still far from solved, principally because of the almost insurmountable difficulties surrounding it. However, there is one hypothesis which has appealed to the author as extremely logical and seductive, and for the last fifteen years he has applied it and has observed its results in thirty-five cases. While he does not regard his report as conclusive, but recognizes that the observations of a single person, because of the nature of the question, is of not much importance, yet he hopes to be able to reach some serviceable deduction by a compilation

of the experiences of many of his confreres, who may read this article and be tempted to experiment with this theory.

Before proceeding to speak of his personal opinions, he briefly recalls the principal theories that have had public favor: That the right or left testicle, or ovary, may each beget exclusively either male or female, or that the position of the woman during intercourse determines sex, have been clearly disproved by facts, since it has been noted that a man with one testicle, or a woman with one ovary, may beget both male and female. The hypothesis that the ovules corresponding to successive menstrual periods are alternately of one or the other sex has not been sanctioned by clinical observation. In considering the theory that the relative vigor of one or the other parent exercises a predominating action, that a man in full vigor and a debilitated woman will beget a son, while a daughter will be born to a woman in full health and a delicate man, we are met with a diversity of conclusions from various observers.

Schenck's theory is somewhat analogous to the last. For him, indeed, it was the super-alimentation of the mother which played the preponderating role in determining the masculine sex. This theory has been thoroughly discredited by Virchow and the Vienna faculty of medicine.

In extrauterine pregnancies, where the conditions of nutrition of the fetus are much more favorable than in normal pregnancies, Roubert has found that in twenty cases the males and females were evenly divided. Thus the author rather concludes that the sex is already determined in the ovule itself, or at the latest, when it is fecundated. In order to determine what part the difference between the age of the parents played, Girou divided three hundred ewes into two parts, one part was well nourished and served by two young rams, the other was feebly nourished and served by two old rams. In the first lot there were sixty females, in the second forty, a difference not sufficiently great to draw conclusions from. The following are some other theories for the determining of sex, which appear more or less inconsistent upon the face of them: persistent sexual inequality between two cohabitators, public or private prosperity, sojourn in town or country, climate, season, consanguinity of parents, legitimacy or illegitimacy of the child, intervals more or less long between the successive pregnancies, heredity, the penetration of more or less numbers of spermatozooids into the ovule.

As physiologic functions of the least importance obey laws marvelously precise, it seems rational to conclude that this most important one obeys a law and is not left to chance, so that, sooner or later, methodic observation or theoretical study, should lead to the solution of this question. The most satisfactory theory, perhaps, is the hypothesis of Professor Thury. It is upon the maturity, more or less perfect, to which the ovule has arrived at the moment of fecundation that depends the sex; it will be feminine when this maturity has not reached a certain degree, masculine when it has passed it. After considering the various theories of ovulation, menstruation, and fecundation, and arriving at the conclusion that fecundation may occur at any time, because of the longevity of life of the spermatozoid, that the ovule is ready for fecundation at the beginning of menstruation, and that, therefore, to beget a female, intercourse should be three or four days before the menstruation, whereas, to beget a male, the intercourse should be three or four days after the cessation of menstruation. After quoting the various experimental researches upon animals, and observations upon woman, the author then proceeds to give the results of his observations of the law of Thury in thirty-five cases, in which four only seem to be opposed to this law. In all four failures, however, the conditions of Thury were not carried out. The author next considers this law in relation with anomalies of ovulation; such as ovulation without menstruation, menstruation without ovulation, fecundation of supernumerary ovules. Finally the procreation of one or the other sex obeys some law which it is of import to determine, and among

the most innumerable theories, that of Thury is the most rational. The migration of the ovule corresponds to the menstrual flow. If then fecundation takes place before the menses it will engender a daughter, if afterwards, a son.

Enteritis and Bacteriuria.—JANET (*Ann. des Mal. des Org. Genito-Urin.*, February 1, 1903).—It is necessary in the first place to distinguish two kinds of bacteriuria; namely, those of external and internal causes. That of an external cause is the most common and is usually due to the colon bacillus, or to different bacilli or cocci which yield ordinarily to the various internal and local means employed for their eradication.

A bacteriuria of internal origin differs altogether from the proceeding, especially because of the difficulty we experience in finding the primary cause and of its rebellious character to all medication. In this class of cases it is necessary to appreciate the source of the evil and to attack it there. There are two ways by means of which internal infection may occur; first, by direct contact or the immediate proximity of a normal organ to a pathologic one; and secondly, through the mediation of the general circulation.

The diagnosis of the participation of the upper urinary apparatus in bacterial infection is most often quite difficult, because the kidney and ureters present no appreciable modification to palpation, and the cystoscopic examination gives no indication, because the bacterial urine is not sufficiently clouded to be distinguished. There remains, however, one procedure of precision, that is, catheterism of both ureters. Unfortunately this procedure is very dangerous; for, in spite of all the care that we can take to disinfect the bladder, we cannot do it, and a healthy ureter will be thus exposed to contamination. In order to avoid this danger the author proposes the following method for diagnosis:

To inoculate a culture tube with a given quantity of the urine drawn off by a catheter, then thoroughly to wash the bladder with sterile water to rid it of what bacteria may remain loose in it. After waiting fifteen minutes to reintroduce the catheter and inoculate another culture tube with the same quantity of the urine which comes down from the ureters. If the upper urinary tract is involved there will be only a slight difference between the cultures in the tubes. If, however, the upper urinary tract is free from involvement the growth upon the two tubes will differ greatly.

We know that the bacteria from certain grave infectious diseases are eliminated through the urine, and it is equally admissible that the bacteria from infections of lesser importance and more localized are eliminated through the urine also. Among the internal causes of bacteriuria the author has noted that enterocolitis is frequently accompanied by bacteriuria, it being always the colon bacillus. Indeed, he quotes several cases in which all measures addressed to the bladder failed to relieve the bacteriuria, but, having placed the patient upon a milk diet and remedies addressed to the enterocolitis for three weeks, the urine rapidly responded then to the remedies addressed to it. His best results followed nitrate of silver washes and the administration of urotropine in a dose from one and one-half to two and one-half grammes, together with the internal administration of benzoate of soda to acidify the urine.

Contribution to the Study of the Surgical Treatment of Bubo.—SCADUTZ (*Ann. des Mal. des Org. Genito-Urin.*, February 15, 1903).—Three kinds of suppurating buboes are distinguished: those in which the pus is limited to the gland, those in which the pus is peri-glandular, and those in which both conditions are present. The resistant cases belong to the last class. While incision and extirpation usually suffice, yet there are cases which require three months or more for a cure. The author proposes, in the cases requiring operation, to make an incision parallel with the fold of the groin, to extend over the entire length of the

swelling, with the index finger to enucleate the glands, then to stuff the cavity remaining with iodoformed guaze, which is to be removed and replaced every twenty-four hours after having washed the wound abundantly with sterilized water. After a week, when good granulations have sprung up, the wound is freshened and sutured. This method gives a quick cure with little cicatricial deformity.

DERMATOLOGY AND SYPHILIS.

IN CHARGE OF

MARTIN F. ENGMAN, M. D.

Present Status of the X-Ray Treatment of Malignant Tumors.—W. B. COLEY (*Medical Record*, March 21).—After a general discussion of his own cases and the results of other observers, Coley draws the following conclusions: The results thus far obtained give abundant evidence that the x-ray has an inhibiting action on all forms of malignant tumors. Yet the number of cases is insufficient to enable us to state what particular varieties are most susceptible to its influence. So far it would seem that primary sarcoma of the lymph glands yield most readily. Superficial epithelioma might be placed in the same category. Several cases of carcinoma of the breast have been observed in which the growth has entirely disappeared after prolonged exposures. Yet all these cases have been too recent to be classed as cured. In fact, sufficient time has not yet elapsed in a single case to justify us as regarding it as cured. While this should, on the one hand, prevent us from reporting patients as cured in whom tumors have merely disappeared under treatment, it should not, on the other hand, lead us to minimize the importance of these immediate results, even though they may be no more than prolongation of life or an alleviation of suffering. One cannot witness the marvelous melting away or disappearance of an undoubtedly malignant tumor in a few weeks or months without feeling that we have a new and powerful addition to our hitherto scanty means of attacking this disease. The knowledge of this new agent is so slight that there is added hope in our very ignorance. For, by deeper insight into its nature, gained by further experience, we may hope to better utilize its power and thus accomplish greater results. The x-ray is not advisable in primary operable cancer.

Treatment of Cutaneous Epithelioma by Iodine.—M. SALMON (*Annales de Dermatolog. et de Syphiligraph*, January, 1903).—On account of the affinity of the epithelial cells for iodine, painting the epitheliomatous surface with iodine solutions suggested itself to the author. He recommends it in preference to the Cerny-Trunnec method. The tincture is used and is painted twice a week over the diseased surface, first washing it with ether. It is not as painful as the arsenic solution of Cerny-Trunnec, and has not the unpleasant secondary suppuration from infection.

Note on a Case of Black Tongue (Langue Villeuse).—MM. EMORY, GASTON and NICOLAS (*Annales de Dermatol. et de Syphiligraphie*, February, 1903).—The characteristic features of the disease which the patient presented consists in the prolongations of the filaments upon the surface of the tongue and in the typical coloration of the organ. The filaments are prolongations of the papilla of the tongue, with a keratinization of the epidermis and adherence of the cells. The etiology of this peculiar affliction is most obscure. The reporters found nothing but normal organisms that inhabit the mouth, especially great numbers of leptothrix. Although many microbes are described as causing black tongue, the au-

thors believe it to be a disease primarily due to a stagnation of the mucous membrane caused by digestive troubles, as the majority of cases present some trouble of this character. M. Darier said in the discussion of the case that he thought from his own researches that the disease was a parasitic one, and that the black color was not due to a parasite, but a certain form of ichthyosis.

M. Gaucher said inoculations of leptothrix failed to produce the disease.

M. Barthelemy believes the disease to be parasitic and slightly contagious.

Etiology of Acne Vulgaris.—T. CASPAR GILCHRIST, M. L. C. S., L. S. A. (*Journal of Cutaneous Diseases*, March, 1903).—Typical cases of acne vulgaris were taken in these experiments and only the nodular formations (acne indurata) without the whitish or yellowish apices of secondary streptococci infection were chosen. Acid glycerine agar was the medium used.

Cultures were taken from one hundred and forty-five lesions from thirty-one cases; fifty-two yielded pure cultures of the bacilli acne; twenty-eight were sterile; fifteen showed cultures of bacillus acnes and a few staphylococcus albus; twenty-nine cultures of bacillus acnes and numerous colonies of staphylococcus albus; twenty-one pure cultures of staphylococcus albus. In girls the cultures were more apt to be pure than in young men. Smears from all lesions showed bacillus acnes with Gram's stain. This bacillus is pathogenic in mice and guinea-pigs. In the smears it is present as a short thick bacillus, but in cultures it often becomes much larger and thicker, and in old cultures assumes branching forms. Upon acid glycerine agar it grows and forms a pultaceous, easily movable mass. These organisms give a clumping reaction with the sera of patients affected with acne vulgaris, and it is to be inferred that a specific toxic body derived from the presence of the bacilli in the tissues is absorbed by the blood, resulting in the production of a specific agglutinin.

Sections of acne lesions show the bacilli in the tissues and in giant cells. The author believes that it is definitely proved that these bacilli are the specific cause of acne vulgaris. Whether or not it is taking a wrong view to consider the anemia, constipation, headaches, coated tongue, etc., as predisposing causes of acne or the result of the acne bacillus toxine. The disease in this way can be compared to erysipelas.

The author does not deny that age, diet, etc., may not be predisposing causes. He considers acne from the possible systematic effects of the organism a disease to be treated with respect, as profound alteration in the health may occur.

LARYNGOLOGY AND OTOTOLOGY.

IN CHARGE OF

WILLIAM E. SAUER, M. D.

The Degenerate Tonsil.—PYNCHON (*Journ. A. M. A.*, March 21, 1903) discusses the "degenerate tonsil," and employs this term to designate all of the ordinary or commonly met chronic conditions of tonsillar disease.

The author states that when the tonsils are not removed they become submerged—that is, they apparently become smaller, while in reality they have changed but little, and are hidden from view by the faucial pillars between which they are imbedded. During this process of submersion there is a gradual absorption of the lymphoid element and a hypertrophy of the follicular element of the tonsil. This progress of evolution, which may progress for many years, is constantly accompanied by and produced through a low grade of chronic in-

flammation, generally manifested by the discharge of a cheesy secretion from the crypts which is continuously taking place, and which, when most noticeable, is known as a chronic lacunar tonsillitis.

Yearsley and a number of other writers are quoted, and all concur in the opinion that the diseased tonsil is the nidus for the growth and distribution of pathogenic organisms.

The thorough eradication of the diseased tonsil is recommended, owing to the danger of systemic infection occurring through the lymphatics, and that the retained secretions may give rise to grave phlegmonous anginas.

The author says that no tonsillotome yet invented is efficient in completely removing the tonsil, particularly the "degenerate tonsil," and recommends the electro-cautery or the dissecting instrument, which he maintains has the following advantages: (1) A practically bloodless field, so all of the diseased tonsillar tissue can be removed; (2) owing to the lack of hemorrhage, no loss of the local anesthetic; (3) by the cauterization a destruction thereof, should any portion of the follicular element escape the line of dissection.

The Presence of Diphtheria Bacilli in Atrophic Rhinitis.—SMYES (*British Med. Jour.*, February 28, 1903) gives the results of his investigations on this subject. He describes a "diphtheria-like" bacillus which is peculiar to atrophic rhinitis. This bacillus is found constantly in atrophic rhinitis, and its cultural characteristics are those of the diphtheria bacillus, and the organisms are pathogenic to guinea-pigs, producing the same lesions as the Klebs-Loeffler bacillus. If their identity can be established, atrophic rhinitis can be regarded as a chronic nasal diphtheria. The following facts support the theory:

First.—In diphtheria the accessory sinuses are constantly infected.

Second.—Chronic suppurations in the sinuses are, in the opinion of many rhinologists, the direct exciting cause of ozena or atrophic rhinitis.

Third.—Multiple cases of atrophic rhinitis in the same household occur from time to time, as one would expect if the process were a true infection.

Fourth.—An attack of diphtheria may be the starting point of atrophic rhinitis.

Fifth.—Atrophic rhinitis, like diphtheria, attacks females more than males; it is a disease of early life, and induces a pronounced anemia and leucocytosis.

Sixth.—Atrophic rhinitis has been successfully treated by diphtheria antitoxin.

Seventh.—In atrophic rhinitis the type of diphtheria bacillus does not alter during the progress of the case, a fact which has recently been found to hold true in acute faucial or nasal diphtheria.

Report of Twenty Cases of Laryngeal Tuberculosis and Two Cases of Epithelioma of the Tongue and Lip Treated with the X-Rays.—BLEYER (*Southern Clinic*, February, 1903) has treated twenty cases of laryngeal tuberculosis with the x-rays with the best results in all the cases but two, and these were in such advanced states that no result could have been expected. The other cases all made rapid recoveries in from seven to ten weeks.

The treatment consisted of the application of the x-rays in combination with general treatment, that is. curettage, application of lactic acid and the daily intra-laryngeal and tracheal injections of menthol or eucalyptol in alboline. The time occupied for each sitting or treatment was from fifteen to thirty minutes daily. The rays are applied by means of a shield mask made of lead fitted over the area of the external part of the throat. An opening is cut in the lead shield sufficiently large to allow the rays to pass directly over the seat of the disease. The part to be x-rayed must receive a thorough antiseptic consideration before and after each application of the x-rays, and it must also be covered with gauze and waxed paper to avoid the so-called x-ray burn.

The author finds that the x-ray has a specific action for the tubercular infiltration and its surrounding tissues. The other remedies simply aid in the progress and rehabilitation of the tissues to a more normal state.

The Tampon Treatment of Otitis Externa Furunculosa.—SACK (*Monatsschrift fuer Ohrenheilkunde*, No. 1, 1903) highly recommends the tampon treatment of otitis externa, and claims that the failures of others are due to not applying the tampon properly. The author first cleans the canal by gentle syringing, then carefully dries the same. He then packs the canal with a tampon of cotton which has been soaked in a 10 per cent. solution of carbolic acid in glycerin. This tampon must be so applied that it exerts a certain amount of pressure, which, however, must not be too great, or the patient may return the next morning, after having passed a sleepless night, with an edema of the corresponding side of the face. If the tampon has been properly applied the pain soon subsides, and if renewed daily the process will disappear in from three to four days. When an abscess is present, it must be opened. After the incision is made, the tampon should be applied and renewed every twenty-four hours.

In some obstinate cases the author found it necessary to apply leeches and hot applications, while in others the ice bag proved of value. The writer has used this form of treatment for more than ten years in his clinical as well as private practice with the best results.

The Cystoscopic Examination of the Nasopharynx or Salpingoscopy.—VALENTIN (*Archiv fuer Laryngologie und Rhinologie*, Band 13, Heft 3).—The author has had a small cystoscope constructed with which he can inspect the nasopharynx, and obtains a much better view than with the ordinary method of examination.

The "salpingoscope" contains a four-volt lamp, which gives a good illumination and very little heat. Three dry cells, with or without a rheostat, furnish the necessary electric current. The author has been able to use it in the same way that one would an ordinary Eustachian catheter, and has used it in children as young as seven years of age.

A larger size of the instrument was also used in making examinations of the larynx.

OPHTHALMOLOGY.

IN CHARGE OF

JOHN GREEN, JR., M. D.

Treatment of Recent Total Staphyloma of the Cornea by Extraction of the Lens.—E. CONSTANTINESCO (*La Clinique Ophthalm.*, February 10, 1903).—The writer calls attention to the fact that ocular hypertension giving rise to the formation of corneal ectasia is due to the forward displacement of the lens, thus stretching the zonule of Zinn and irritating the ciliary region. Extraction of the lens was successfully practiced by v. Graefe, but he limited the method to cases of partial staphyloma, abscising the protuberant cicatricial mass when the ectasia was complete.

According to Constantinesco, extraction is applicable also to cases of total staphyloma, provided the latter is of recent development. The newly formed cicatricial tissue is capable of noteworthy contraction after the support offered by the intraocular pressure is removed by incision into the anterior chamber. The contractile power of the tissue is very evident twenty-four hours after the opera-

tion, when the corneal wound will be found to gape widely and the bulging will have largely disappeared. The outcome in the five cases reported was eminently satisfactory. Conclusions in part are as follows: (1) Extraction results in permanently lowering the intraocular pressure which is responsible for the staphylomatous process; (2) the staphyloma does not recur; (3) should secondary glaucoma ensue, an iridectomy may be performed; (4) the procedure is conservative, inasmuch as the dimensions, form and movements of the eye are but little altered.

Congenital Defect of Abduction Associated With Retraction of the Eyeball in Adduction.—J. J. EVANS (*Ophthalm. Review*, January, 1903).—The condition is congenital and in most cases is confined to one eye. The affected eye may be enophthalmic; in the primary position its axis is usually parallel with that of the fellow eye. "Attempted conjugate movement towards the unaffected side is associated with imperfect rotation inwards of the faulty eye, its retraction into the orbit and narrowing of the palpebral fissure, and sometimes an upward or downward rotation of the globe. On the contrary, when the patient attempts to turn the eyes towards the affected side the defective eye comes forward and widens the palpebral aperture to an extent equal to that of the normal side, but fails to move outwards beyond the vertical mesial plane of the orbit." In attempted convergence "the healthy eye rotates inwards, but its fellow assumes the primary position, and at the same time comes forward and widens the palpebral aperture;" under these circumstances the pupils do not contract. In some cases rotation inward, in others rotation outward, cannot be effected even by forcible traction with conjunctival forceps. Vision of the affected eye is usually below normal. Diplopia may be present or absent. The anomaly is more common in females and on the left side.

Two theories have been advanced to explain cases of this kind. "According to the *faulty insertion theory*, the retracting muscle, which is the internal rectus, is attached to the eyeball farther back than normal. Consequently the portion of muscle capable of unwinding itself from the globe is diminished and inward rotation is correspondingly replaced by a backward pull on the globe when the internal rectus contracts." According to the *fixation theory* it is assumed that the muscle fibers of the external rectus are replaced by an unyielding connective tissue strand. "This fixes the eyeball on its outer side and offers an obstacle to adduction, so that the eye can yield to the traction of the internal rectus only by moving back into the orbit at the same time that it turns inwards." Evans believes that the condition is best explained "by a theory of faulty insertion of the internal and external recti" with "a maldevelopment of the latter and diminished elasticity of the former."

A tabulated analysis of the cases hitherto published is appended.

An Astigmatism Cured by Operation.—G. J. BULL (*N. Y. Med. Jour.*, February 7, 1903).—Bull's patient had an inverse myopic astigmatism of 1.75 D. in the right eye, and a compound myopic astigmatism in the left eye. Vision with either eye without correction was $\frac{6}{18}$. The ophthalmometer showed that the astigmatism of the left eye was largely a curvature ametropia. Division of the left external rectus was performed to relieve an exophoria of 6 degrees. Three days later the ophthalmometer showed that the corneal astigmatism of the left eye had disappeared and vision without correction had risen to $\frac{6}{6}$.

The effect produced in this case suggests that the tension of the external muscles has an important bearing upon intraocular tension. An interesting fact, in this connection, is that inverse astigmatism, often progressive, is singularly common in glaucoma.

A New Ocular Muscle (Musculus Papillæ Optici).—C. NICOLAI (*Ann. d'oculist.*, November, 1902).—Nicolai has discovered a band of fibers encircling the head of the optic nerve which, judging from the form of the individual cells and their tinctorial reaction to v. Gieson's stain, is thought to be a band of smooth muscle fibers. Circular, longitudinal and radial fibers are recognized. The circular portion is situated at the narrowest part of the optic nerve, in the prolongation of the basal membrane of the choroid and the pigment layer of the retina. The longitudinal portion forms a collar surrounding the optic nerve, connecting the outer part of the latter with the choroid. The radial portion of the muscle shows the greatest development; it extends from the cribriform plate to the bifurcation of the central artery. The writer has found similar fibers in the monkey, cat, pig, camel, etc. He refuses to hazard a guess as to its possible function.

Case of Glioma of the Retina Simulating Hypopyon.—W. H. JESSOP (*Ophthalm. Review*, January, 1903).—Jessop's patient was a little boy, aged four years, who complained of pain in the right eye. The cornea presented a small linear ulcer and was generally steamy. The anterior chamber was shallow and contained a little "milky-white" fluid which changed with the position of the child's head. The iris was "muddy looking," but there were no posterior synechiæ. The lens was apparently opaque. T. n. V. p. 1.

Paracentesis of the anterior chamber yielded a yellowish white fluid which proved sterile. The "hypopyon" reformed, disappeared and again reformed. Finally tension rising to +2 with severe pain the eye was enucleated. Examination showed a glioma and the orbit was exenterated. The patient died three months later with symptoms of intracranial pressure.

Microscopical examination showed that the apparent hypopyon was in reality due to masses of tumor cells probably derived from the base of the iris. The case is thought to be unique.

BOOK REVIEWS.

ATLAS AND EPITOME OF THE MOUTH, PHARYNX AND NOSE. By DR. L. GRUNWALD, of Munich. From the second revised and enlarged German edition. Edited, with additions, by JAMES E. NEWCOMB, M. D., Instructor in Laryngology, Cornell University Medical School, Attending Laryngologist to the Roosevelt Hospital, Out-Patient Department. With 102 illustrations on 42 colored lithographic plates, 41 text cuts and 219 pages of text. Philadelphia and London: W. B. Saunders & Co. 1903. Cloth, \$3.00 net.

The first edition of Dr. Grunwald's atlas received a very warm welcome, and is well known to all those interested in this special branch. This, the second, edition bids fair to be received with even greater enthusiasm. The plates, which represent typical cases and not rare types of disease, are all exceedingly well executed, the majority having been painted by the author himself from nature. The descriptive part of the work is eminently practical, and in many instances almost equals a clinical demonstration.

AN EPITOME OF PHYSIOLOGY FOR STUDENTS AND PRACTITIONERS OF MEDICINE. By THEODORE C. GUENTHER, M. D., and AUGUSTUS E. GUENTHER, B. S. 12mo, 250 pages, with 57 engravings. Lea Brothers & Co., Philadelphia and New York. 1903.

The above is a good example of the medical epitomes that are rapidly replacing the old quiz compends. While evidently written for the purpose of rapid reading and of enabling the student hastily to prepare himself for examination, the list of examination questions at the end of each chapter being a potent aid to his memory, the book nevertheless consists not merely of a mass of undigested facts, but of an adequate, if condensed, presentation of physiology from a modern point of view. That the progress, in this science, of the past few years finds little or no place in this volume was to be expected. If we must have quiz-compend— and the necessity does not seem clear— epitomes like the above are to be welcomed.

CUSHNY'S PHARMACOLOGY AND THERAPEUTICS. A text-book of Pharmacology and Therapeutics; or, the Action of Drugs in Health and Disease. By ARTHUR R. CUSHNY, A. M., M. D. Third edition, 8vo, 750 pages, with 52 engravings. Lea Brothers & Co., Philadelphia and New York. 1903.

This volume can be unreservedly commended both to the student and to the practitioner who desires to have on his shelves a reference volume on pharmacology and therapeutics from the scientific point of view. It is written with German thoroughness, is up to date and as complete as it is possible for a volume of its size to be. Particularly noteworthy is the discussion of alcohol both as a food and as a drug. Recent advances in therapeutics, such as sub-arachnoid cocainization and the use of adrenalin are adequately treated.

DIE PHYSIKALISCH-DIAETETISCHE THERAPIE IN DER AERZTLICHEN PRAXIS. By B. PRESCH, Nos. 3-5. A. Stuber's Verlag, Wuerzburg. 1903.

With the third, fourth and fifth "Lieferung," this valuable little work is nearing completion. As its title indicates, it ignores all medicinal therapeutics, but gives on the whole a very satisfactory account of the dietetic and physical treatment of disease—a therapy woefully neglected by the average practitioner. The presentation is brief, clear, reasonably complete, if somewhat dogmatic, and the book can be unreservedly commended to our readers.